

The following pages contain datasheets for all products within the biotinylated human Fc receptor panel. This consists of the following nine items:

- Human FcγRI / CD64, product code HUGR1-B
- Human FcγRIIa / CD32a (167H), product code HUGR2AH-B
- Human FcγRIIa / CD32a (167R), product code HUGR2AR-B
- Human FcγRIIb / CD32b, product code HUGR2B-B
- Human FcγRIIIa / CD16a (176F), product code HUGR3AF-B
- Human FcγRIIIa / CD16a (176V), product code HUGR3AV-B
- Human FcγRIIIb / CD16b (NA1), product code HUGR3B1-B
- Human FcγRIIIb / CD16b (NA2), product code HUGR3B2-B
- Human FcRn heterodimer, product code HUFCRN-B

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Gamma Proteins Ltd, Portland House, Belmont Business Park, Durham, DH1 1TW, United Kingdom
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Biotinylated human Fc gamma RI / CD64 protein

Catalog number HUGR1-B

Synonyms

CD64, CD64A, FCGR1, FCGRI, FCGR1A, FCGRIA, FCR1, FCRI, IGFR1, IGFR1, Fc gamma R1, Fc gamma RI, Fcg R1, Fcg RI

Species

Human

Accession number

P12314

Allotype

Not applicable

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD64 (Gln 16-Leu 281) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD64 including tag consists of 305 amino acids and has a theoretical mass of 34376 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

High affinity immunoglobulin gamma Fc receptor I, also known as FcγRI or CD64, is a type I integral membrane glycoprotein. CD64 is a member of the immunoglobulin superfamily and is expressed on monocytes, macrophages, dendritic cells and activated granulocytes. CD64 binds with high affinity to the Fc domain of IgG and it plays a role in antigen capture, phagocytosis of IgG/antigen complexes, and antibody-dependent cellular cytotoxicity (ADCC). CD64 is structurally composed of three extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail. CD64 is associated with a dimer of the common Fc receptor gamma-chain which contains the immunoreceptor tyrosine-based activation (ITAM) motif. The product provided only contains the extracellular portion of CD64.

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Biotinylated human Fc gamma RIIa / CD32a (167H) protein

Catalog number HUGR2AH-B



Synonyms

CD32, CD32A, FCGR2, FCGR2A, FCGR2B, FCGR2C, FCGR2D, FCGR2E, FCGR2F, FCGR2G, FCGR2H, FCGR2I, FCGR2J, FCGR2K, FCGR2L, FCGR2M, FCGR2N, FCGR2O, FCGR2P, FCGR2Q, FCGR2R, FCGR2S, FCGR2T, FCGR2U, FCGR2V, FCGR2W, FCGR2X, FCGR2Y, FCGR2Z, FC gamma R2, Fc gamma R2a, Fc gamma R2b, Fc gamma R2c, Fc gamma R2d, Fc gamma R2e, Fc gamma R2f, Fc gamma R2g, Fc gamma R2h, Fc gamma R2i, Fc gamma R2j, Fc gamma R2k, Fc gamma R2l, Fc gamma R2m, Fc gamma R2n, Fc gamma R2o, Fc gamma R2p, Fc gamma R2q, Fc gamma R2r, Fc gamma R2s, Fc gamma R2t, Fc gamma R2u, Fc gamma R2v, Fc gamma R2w, Fc gamma R2x, Fc gamma R2y, Fc gamma R2z

Species

Human

Accession number

P12318

Allotype

167H

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD32a (Ala 36-Ile 218) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD32a (167H) including tag consists of 222 amino acids and has a theoretical mass of 24773 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water.

Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIa, also known as FcγRIIa or CD32a, is a type I integral membrane glycoprotein. CD32a is a member of the immunoglobulin superfamily and is expressed on macrophages, monocytes, neutrophils, eosinophils and dendritic cells, epithelial cells, platelets and activated CD4+ T cells. CD32a binds monomeric IgG with low affinity but is very efficient at binding immune complexes and is involved in phagocytosis and clearing of immune complexes. CD32a is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail containing the immunoreceptor tyrosine-based activation (ITAM) motif. The product provided only contains the extracellular portion of CD32a.

CD32a has two allotypic variants differing at amino acid position 167, one containing histidine (H167) and the other arginine (R167). H167 exhibits a higher affinity to human IgG1 and IgG2 than the R167 does and is thought to be primarily responsible for the phagocytosis of IgG-opsonized bacteria.

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Biotinylated human Fc gamma RIIa / CD32a (167R) protein

Catalog number HUGR2AR-B



Synonyms

CD32, CD32A, FCGR2, FCGR2A, FCGR2B, FCGR2C, FCGR2D, FCGR2E, FCGR2F, FCGR2G, FCGR2H, FCGR2I, FCGR2J, FCGR2K, FCGR2L, FCGR2M, FCGR2N, FCGR2O, FCGR2P, FCGR2Q, FCGR2R, FCGR2S, FCGR2T, FCGR2U, FCGR2V, FCGR2W, FCGR2X, FCGR2Y, FCGR2Z, FC gamma R2, Fc gamma R2a, Fc gamma R2b, Fc gamma R2c, Fc gamma R2d, Fc gamma R2e, Fc gamma R2f, Fc gamma R2g, Fc gamma R2h, Fc gamma R2i, Fc gamma R2j, Fc gamma R2k, Fc gamma R2l, Fc gamma R2m, Fc gamma R2n, Fc gamma R2o, Fc gamma R2p, Fc gamma R2q, Fc gamma R2r, Fc gamma R2s, Fc gamma R2t, Fc gamma R2u, Fc gamma R2v, Fc gamma R2w, Fc gamma R2x, Fc gamma R2y, Fc gamma R2z

Species

Human

Accession number

P12318

Allotype

167R

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD32a (Ala 36-Ile 218) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD32a (167R) including tag consists of 222 amino acids and has a theoretical mass of 24792 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water.

Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIa, also known as FcγRIIa or CD32a, is a type I integral membrane glycoprotein. CD32a is a member of the immunoglobulin superfamily and is expressed on macrophages, monocytes, neutrophils, eosinophils and dendritic cells, epithelial cells, platelets and activated CD4+ T cells. CD32a binds monomeric IgG with low affinity but is very efficient at binding immune complexes and is involved in phagocytosis and clearing of immune complexes. CD32a is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail containing the immunoreceptor tyrosine-based activation (ITAM) motif. The product provided only contains the extracellular portion of CD32a.

CD32a has two allotypic variants differing at amino acid position 167, one containing histidine (H167) and the other arginine (R167). H167 exhibits a higher affinity to human IgG1 and IgG2 than the R167 does and is thought to be primarily responsible for the phagocytosis of IgG-opsonized bacteria.

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Gamma Proteins Ltd, Portland House, Belmont Business Park, Durham, DH1 1TW, United Kingdom
Email: support@gammaproteins.com Website: www.gammaproteins.com

Biotinylated human Fc gamma RIIb / CD32b protein

Catalog number HUGR2B-B

Synonyms

CD32, CD32B, FCGR2, FCGR2B, FCGR1I, FCGR1IB, FCR2, FCR2B, FCRII, FCRIIB, IGFR2, IGFR2B, IGFR1I, IGFR1IB, Fc gamma R2, Fc gamma R2b, Fc gamma RII, Fc gamma RIIb, Fcg R2, Fcg R2b, Fcg RII, Fcg RIIb

Species

Human

Accession number

P31994

Allotype

Not applicable

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD32b (Ala 46-Pro 217) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD32b including tag consists of 211 amino acids and has a theoretical mass of 23798 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIb, also known as FcγRIIb or CD32b, is a type I integral membrane glycoprotein. CD32b is a member of the immunoglobulin superfamily and is expressed on B cells, subsets of monocytes, macrophages and granulocytes, platelets and mast cells. CD32b binds monomeric IgG with low affinity but is efficient at binding immune complexes and is a negative regulator of cell activation, proliferation, endocytosis, phagocytosis, and degranulation. CD32b is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail containing the immunoreceptor tyrosine-based inhibition (ITIM) motif. The product provided only contains the extracellular portion of CD32.

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Gamma Proteins Ltd, Portland House, Belmont Business Park, Durham, DH1 1TW, United Kingdom
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Biotinylated human Fc gamma RIIIa / CD16a (176F) protein

Catalog number HUGR3AF-B



Synonyms

CD16, CD16A, FCGR3, FCGR3A, FCGRIII, FCGRIIIa, FCR3, FCR3A, FCRIII, FCRIIIa, IGFR3, IGFR3A, IGFRIII, IGFRIIIa, Fc gamma R3, Fc gamma R3a, Fc gamma RIII, Fc gamma RIIIa, Fcg R3, Fcg R3a, Fcg RIII, Fcg RIIIa

Species

Human

Accession number

P08637

Allotype

176F

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD16a (Gly 17-Gln 208) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD16a (176F) including tag consists of 231 amino acids and has a theoretical mass of 26299 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water.

Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIIa, also known as FcγRIIIa or CD16a, is a type I integral membrane glycoprotein. CD16a is a member of the immunoglobulin superfamily and is expressed on macrophages, monocytes and NK cells. CD16a binds monomeric IgG with low affinity but is efficient at binding immune complexes and functions in NK cell activation, phagocytosis and antibody-dependent cellular cytotoxicity (ADCC). CD16a is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail. CD16a is associated with a dimer of the common Fc receptor gamma-chain which contains the immunoreceptor tyrosine-based activation (ITAM) motif. The product provided only contains the extracellular portion of CD16a.

CD16a has two allotypic variants differing at amino acid position 176, one containing phenylalanine (F176) and the other valine (V176). The V176 variant has a greater affinity for all the IgG subclasses and thus results in greater effector function.

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Biotinylated human Fc gamma RIIIa / CD16a (176V) protein

Catalog number HUGR3AV-B



Synonyms

CD16, CD16A, FCGR3, FCGR3A, FCGRIII, FCGRIIIa, FCR3, FCR3A, FCRIII, FCRIIIa, IGFR3, IGFR3A, IGFRIII, IGFRIIIa, Fc gamma R3, Fc gamma R3a, Fc gamma RIII, Fc gamma RIIIa, Fcg R3, Fcg R3a, Fcg RIII, Fcg RIIIa

Species

Human

Accession number

P08637

Allotype

176V

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD16a (Gly 17-Gln 208) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD16a (176V) including tag consists of 231 amino acids and has a theoretical mass of 26251 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water.

Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIIa, also known as FcγRIIIa or CD16a, is a type I integral membrane glycoprotein. CD16a is a member of the immunoglobulin superfamily and is expressed on macrophages, monocytes and NK cells. CD16a binds monomeric IgG with low affinity but is efficient at binding immune complexes and functions in NK cell activation, phagocytosis and antibody-dependent cellular cytotoxicity (ADCC). CD16a is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain, a transmembrane domain and a short cytoplasmic tail. CD16a is associated with a dimer of the common Fc receptor gamma-chain which contains the immunoreceptor tyrosine-based activation (ITAM) motif. The product provided only contains the extracellular portion of CD16a.

CD16a has two allotypic variants differing at amino acid position 176, one containing phenylalanine (F176) and the other valine (V176). The V176 variant has a greater affinity for all the IgG subclasses and thus results in greater effector function.

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Biotinylated human Fc gamma RIIIb / CD16b (NA1) protein

Catalog number HUGR3B1-B



Synonyms

CD16, CD16B, FCGR3, FCGR3B, FCGRIII, FCGRIIIb, FCR3, FCR3B, FCRIII, FCRIIIb, IGFR3, IGFR3B, IGFRIII, IGFRIIIb, Fc gamma R3, Fc gamma R3b, Fc gamma RIII, Fc gamma RIIIb, Fcg R3, Fcg R3b, Fcg RIII, Fcg RIIIb

Species

Human

Accession number

O75015

Allotype

NA1

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD16b (Gly 17-Ser 200) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD16b (NA1) including tag consists of 223 amino acids and has a theoretical mass of 25372 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIIb, also known as FcγRIIIb or CD16b, is a glycosylphosphatidylinositol (GPI) anchored glycoprotein. CD16b is a member of the immunoglobulin superfamily and is expressed on exclusively on neutrophils. CD16b binds monomeric IgG with low affinity but is efficient at binding immune complexes and acts as a decoy with no known signaling mechanism. CD16b is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain and a GPI membrane anchor with no cytoplasmic tail. The product provided only contains the extracellular portion of CD16b.

CD16b has two allotypic variants, referred to as human neutrophil antigen 1 (NA1 or HNA1a) and 2 (NA2 or HNA1b). The allotypes have differing affinities to human IgG1 and IgG3 with the NA1 form capable of better ingestion of IgG1 or opsonized IgG3 particles than NA2.

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Biotinylated human Fc gamma RIIIb / CD16b (NA2) protein

Catalog number HUGR3B2-B

Synonyms

CD16, CD16B, FCGR3, FCGR3B, FCGRIII, FCGRIIIB, FCR3, FCR3B, FCRIII, FCRIIIB, IGFR3, IGFR3B, IGFRIII, IGFRIIIB, Fc gamma R3, Fc gamma R3b, Fc gamma RIII, Fc gamma RIIIb, Fcg R3, Fcg R3b, Fcg RIII, Fcg RIIIb

Species

Human

Accession number

O75015

Allotype

NA2

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human CD16b (Gly 17-Ser 200) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. The full protein sequence can be downloaded from the product webpage.

Molecular weight

The recombinant human CD16b (NA2) including tag consists of 223 amino acids and has a theoretical mass of 25289 Da.

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

Low affinity immunoglobulin gamma Fc receptor IIIb, also known as FcγRIIIb or CD16b, is a glycosylphosphatidylinositol (GPI) anchored glycoprotein. CD16b is a member of the immunoglobulin superfamily and is expressed on exclusively on neutrophils. CD16b binds monomeric IgG with low affinity but is efficient at binding immune complexes and acts as a decoy with no known signaling mechanism. CD16b is structurally composed of two extracellular immunoglobulin domains of the C2-type that interact with the IgG Fc domain and a GPI membrane anchor with no cytoplasmic tail. The product provided only contains the extracellular portion of CD16b.

CD16b has two allotypic variants, referred to as human neutrophil antigen 1 (NA1 or HNA1a) and 2 (NA2 or HNA1b). The allotypes have differing affinities to human IgG1 and IgG3 with the NA1 form capable of better ingestion of IgG1 or opsonized IgG3 particles than NA2.

For research use only. Not for use in diagnostic or therapeutic procedures.

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Biotinylated human FcRn (FCGRT-B2M) heterodimer protein

Catalog number HUFCRN-B



Synonyms

FcRn, FCGRT, FCGRT & B2M, FCGRT and B2M, Neonatal Fc receptor, Neonatal receptor, Brambell receptor

Species

Human

Accession number

P55899 / P61769

Allotype

Not applicable

Conjugation status

Biotinylated. Biotin to protein ratio is confirmed as 0.7-1.0 by the HABA assay. Product has been site-specifically biotinylated using the AVI tag technology, where the lysine residue within the tag is enzymatically labeled with biotin.

Purity

>95% monomer purity as determined by SDS-PAGE and SEC-HPLC.

Endotoxin

<1.0 EU per mg as determined by the LAL method.

Protein design

The sequence of the extracellular domain of human FCGRT (Ala 24-Ser 297) was fused with a C-terminal tag consisting of the AVI tag, TEV protease recognition sequence and a 10-His tag. This was co-transfected with the sequence of human B2M (Ile 21-Met 119)

Molecular weight

The recombinant FcRn heterodimer including tags consists of 412 amino acids and has a theoretical mass of 46570 Da. The heterodimer consists of human FCGRT (313 amino acids; 34839 Da) and human B2M (99 amino acids; 11731 Da).

Expression host

Human embryonic kidney (HEK) 293 cells.

Formulation

Lyophilized from sterile PBS, pH 7.4. No preservatives or cryoprotectants have been added.

Reconstitution

To obtain a final concentration of 1 mg/ml reconstitute 250 µg vials with 250 µl water and 1.0 mg vials with 1.0 ml water. Solubilize for 30 to 60 minutes at room temperature with occasional gentle mixing. Do not vortex.

Shipping

All recombinant proteins are provided as lyophilized powder and shipped at ambient temperature.

Storage and stability

Lyophilized proteins are stable at ambient temperature for at least 2 weeks. If the protein is not to be used immediately then the protein should be stored in lyophilized form at -20 °C for up to 12 months. Once the protein has been reconstituted we recommend storage at 4 °C for up to one week. For longer term storage of protein in solution we recommend aliquoting into smaller vials to avoid repeated freeze-thaw cycles and storage at -20 or -80 °C for up to 3 months.

Quality control

All recombinant proteins are tested for purity by SDS-PAGE and SEC-HPLC with a minimum requirement of >95% monomer purity. Biological activity is confirmed by surface plasmon resonance on a Biacore instrument. Please see certificate of analysis (COA) for batch specific quality control data and images.

Product description

IgG Fc fragment receptor transporter, also known as the neonatal Fc receptor or more commonly FcRn, consist of two subunits (FCGRT and B2M) and forms an MHC class I-like heterodimer. FcRn binds to the Fc domain of monomeric IgG and mediates the pH dependent recycling of IgG as well as its uptake from milk and transfer from mother to fetus.

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