

ACKR1 Protein, Human, Recombinant (His)

General Information

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| Synonyms: | Glycoprotein D;CD234;ACKR1;Fy glycoprotein (GpFy);FY;GPD;DARC;Duffy antigen/chemokine receptor;Atypical chemokine receptor 1;Plasmodium vivax receptor |
| Protein Construction: | 1-336 aa |
| Species: | Human |
| Expression Host: | E. coli |
| Accession: | Q16570 |
| Molecular Weight: | 41.1 kDa (predicted) |
| AA Sequence: | MGNCLHRAELSPSTENSSQLDFEDVWNSSYGVNDSFPDGDYGANLEAAAPCHSCNLLDDSA LPFFILTSVLG ILASSTVLFMLFRPLFRWQLCPGWVLAQLAVGSALFSIVVPVLAPGLGSTRSSALCSLGYCVWYGSFAFAQALL LGCHASLGHR LGAGQVPGLTLGLTVGIWGVAALLTLPVTLASGASGGLCTLIYSTEKALQATHTVACLAIFVLL PLGLFGAKGLKKALGMGPWPWNILWAWFIFWPHGVVLGLDFLVRSKLLLLSTCLAQQALDLLNLAEALA ILHCVATPLLLALFCHQATRLLPSLPLPEGWSSHLDTLGSKS |

QC Testing

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| Biological Activity: | Measured by its binding ability in a functional ELISA. Immobilized ACKR1 at 1 µg/mL can bind human CCL2, the EC50 of human CCL2 protein is 48.64-60.24 µg/mL. |
| Purity: | > 85% as determined by SDS-PAGE. |
| Endotoxin: | < 1.0 EU/µg of the protein as determined by the LAL method. |
| Formulation: | Tris-based buffer, 50% glycerol |

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Atypical chemokine receptor that controls chemokine levels and localization via high-affinity chemokine binding that is uncoupled from classic ligand-driven signal transduction cascades, resulting instead in chemokine

sequestration, degradation, or transcytosis. Also known as interceptor (internalizing receptor) or chemokine-scavenging receptor or chemokine decoy receptor. Has a promiscuous chemokine-binding profile, interacting with inflammatory chemokines of both the CXC and the CC subfamilies but not with homeostatic chemokines. Acts as a receptor for chemokines including CCL2, CCL5, CCL7, CCL11, CCL13, CCL14, CCL17, CXCL5, CXCL6, IL8/CXCL8, CXCL11, GRO, RANTES, MCP-1, TARC and also for the malaria parasites *P.vivax* and *P.knowlesi*. May regulate chemokine bioavailability and, consequently, leukocyte recruitment through two distinct mechanisms: when expressed in endothelial cells, it sustains the abluminal to luminal transcytosis of tissue-derived chemokines and their subsequent presentation to circulating leukocytes; when expressed in erythrocytes, serves as blood reservoir of cognate chemokines but also as a chemokine sink, buffering potential surges in plasma chemokine levels.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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