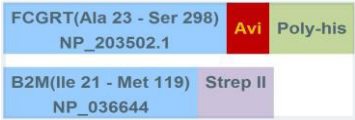


# Datasheet

## Biotinylated Rat FcRn / FCGRT & B2M, Avi Tag (Avitag™)

Catalog # FCM-R82W7

For Research Use Only

Description	
<b>Source</b>	MABSol® Biotinylated Rat FcRn / FCGRT & B2M Heterodimer Protein (FCM-R82W7) is expressed from human HEK293 cells. It contains AA Ala 23 - Ser 298 (FCGRT) & Ile 21 - Met 119 (B2M) (Accession # NP_203502 (FcRn) & NP_036644 (B2M)). Predicted N-terminus: Ala 23 (FCGRT) & Ile 21 (B2M)
<b>Predicted N-terminus</b>	Ala 23 (FCGRT) & Ile 21 (B2M)
<b>Protein Structure</b>	
<b>Molecular Characterization</b>	The subunit FCGRT carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag. The subunit Beta-2 microglobulin (B2M) carries a Strep II tag at the C-terminus. The protein has a calculated MW of 34.7 kDa (FCGRT), 13.1 kDa (B2M). The protein migrates as 45-50kDa (FCGRT), 14 kDa (B2M) respectively on a SDS-PAGE gel under reducing (R) condition due to glycosylation.
<b>Biotinylation</b>	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
<b>Biotin:Protein Ratio</b>	The biotin to protein ratio is 0.5-1 as determined by the HABA assay.
<b>Endotoxin</b>	Less than 1.0 EU per µg by the LAL method.
<b>Purity</b>	>95% as determined by SDS-PAGE.
<b>Bioactivity</b>	Measured by its binding ability in a functional ELISA. Immobilized Yervoy Ipilimumab at 5 µg/mL (100 µL/well) can bind Biotinylated Rat FcRn / FCGRT & B2M (Catalog # FCM-R82W7) with a linear range of 0.02-0.15 µg/mL (QC tested).
Formulation and Storage	
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization. Contact us for customized product form or formulation.
<b>Reconstitution</b>	Please see Certificate of Analysis for specific instructions. For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.
<b>Storage</b>	For long term storage, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles.  No activity loss was observed after storage at: <ul style="list-style-type: none"> <li>• 4-8°C for 12 months in lyophilized state;</li> <li>• -70°C for 3 months under sterile conditions after reconstitution.</li> </ul>
Background	
<b>Background</b>	FCGRT & B2M heterodimer protein (FcRn complex) consist of two subunits: p51 (equivalent to FCGRT), and p14 (equivalent to beta-2-microglobulin), and forms an MHC class I-like heterodimer. Fc fragment of IgG, receptor, transporter, alpha (FCGRT) binds to the Fc region of monomeric immunoglobulins gamma and mediates the uptake of IgG from milk. FCGRT possible role in transfer of immunoglobulin G from mother to fetus. Beta-2-microglobulin (B2M) is a component of the class I major histocompatibility complex (MHC) and involved in the presentation of peptide antigens to the immune system.
<b>References</b>	<ol style="list-style-type: none"> <li>(1) Goebel NA., et al., 2008, Mol. Biol. Cell 19 (12): 5490–505.</li> <li>(2) Lee TY., et al., 2008, Clin. Cancer Res. 14 (5): 1487–93.</li> <li>(3) Güssow D., et al., 1987, J. Immunol. 139 (9): 3132–8.</li> <li>(4) Gorevic P.D., et al., 1986, Proc. Natl. Acad. Sci. U.S.A. 83:7908-7912.</li> </ol>
Please contact us at <a href="mailto:TechSupport@acrobiosystems.com">TechSupport@acrobiosystems.com</a> , if you have any questions about this product.	

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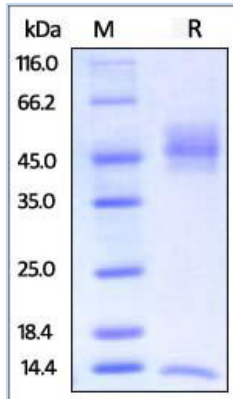
### Biotinylated Rat FcRn / FCGRT & B2M, Avi Tag (Avitag™)

Catalog # FCM-R82W7

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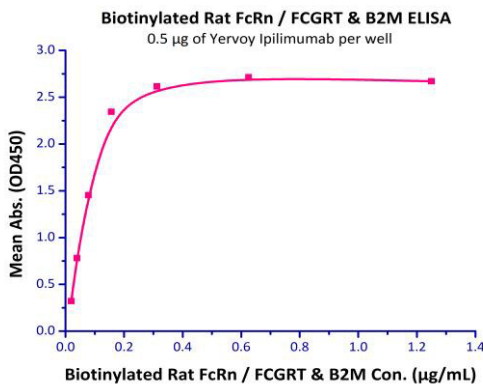
#### Assay Data

##### SDS-PAGE Data



Biotinylated Rat FcRn / FCGRT & B2M on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

##### Bioactivity Data



Immobilized Yervoy Ipilimumab at 5 µg/mL (100 µL/well) can bind Biotinylated Rat FcRn / FCGRT & B2M (Catalog # FCM-R82W7) with a linear range of 0.02-0.15 µg/mL (QC tested).