



Recombinant Protein Technical Manual
Recombinant Mouse SerpinA6/CBG Protein (His Tag)
RPES2962

Product Data:

Product SKU: RPES2962

Size: 50µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: Q06770

Protein Information:

Molecular Mass: 43.7 kDa

AP Molecular Mass: 50-60 kDa

Tag: C-His

Bio-activity:

Purity: > 98 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: AI265318;AV104445;Cbg

Immunogen Information:

Sequence: Met 1-Ala 397

Background:

Corticosteroid-binding globulin (CBG), also known as SerpinA6, is a non-inhibitory member of the serine proteinase inhibitor (serpin) superfamily. It is the high-affinity transport protein for glucocorticoids in vertebrate blood. CBG is specifically cleaved by this protease at a precise site close to its carboxy-terminus. This induces a conformation change and disrupts the binding between glucocorticoids and CBG, and promotes a significant and local release of glucocorticoids (over 90% of them are bound to CBG in human plasma). In this context, CBG directs glucocorticoids to sites of inflammation, and plays in consequence a crucial role in efficient glucocorticoid action in physiology. The SerpinA6 protein is mainly secreted by the liver. This negative acute phase protein regulates free cortisol levels in the blood and distributes cortisol to its target tissues. SerpinA6 deficiency is an extremely rare hereditary disorder characterized by reduced corticosteroid-binding capacity with normal or low plasma corticosteroid-binding globulin concentration, and normal or low basal cortisol levels associated with hypo-/hypertension and muscle fatigue. There are three heritable, human CBG gene mutations that can reduce CBG-cortisol binding affinity and/or reduce circulating CBG levels.