

Recombinant Human SERPINA6 Protein (Met1-Val405), His-AVI-tagged, Biotinylated

Cat. No. SERPINA6-468H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SERPINA6 Protein (NP_001747.2) (Met1-Val405) was produced by HEK293 Cells expression system. This protein was expressed with a c-terminal polyhistidine tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.
Species	Human
Source	HEK293
ProteinLength	Met1-Val405
Description	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 9% 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

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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.

Predicted N Terminal	Met 23
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant human SERPINA6 consists of 409 amino acids and predicts a molecular mass of 45.9 kDa.
Endotoxin	< 1.0 EU per µg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

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Conjugation Biotin

GENE INFORMATION

Gene Name SERPINA6 serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 6 [Homo sapiens]

Official Symbol SERPINA6

Synonyms SERPINA6; serpin A6; CBG;

Gene ID 866

mRNA Refseq NM_001756

Protein Refseq NP_001747

MIM 122500

UniProt ID P08185

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