

Recombinant Human HSD11B1 Protein (M1-K292), Tag Free

Cat. No. HSD11B1-0319H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GG-HSD11B1(M1-K292 end) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	M1-K292
Description	Controls the reversible conversion of biologically active glucocorticoids such as cortisol to cortisone, and 11-dehydrocorticosterone to corticosterone in the presence of NADP(H). Participates in the corticosteroid receptor-mediated anti-inflammatory response, as well as metabolic and homeostatic processes. Plays a role in the secretion of aqueous humor in the eye, maintaining a normotensive, intraocular environment. Bidirectional in vitro, predominantly functions as a reductase in vivo, thereby increasing the concentration of active glucocorticoids. It has broad substrate specificity, besides glucocorticoids, it accepts other steroid and sterol substrates. Interconverts 7-oxo- and 7-hydroxy-neurosteroids such as 7-oxopregnenolone and 7beta-hydroxypregnenolone, 7-oxodehydroepiandrosterone (3beta-hydroxy-5-androstene-7,17-dione) and 7beta-hydroxydehydroepiandrosterone (3beta,7beta-dihydroxyandrost-5-en-17-one), among others. Catalyzes the stereo-specific conversion of the major dietary oxysterol, 7-ketocholesterol (7-oxocholesterol), into the more polar 7-beta-hydroxycholesterol metabolite. 7-oxocholesterol is one of the most important oxysterols, it participates in several events such as induction of apoptosis, accumulation in atherosclerotic lesions, lipid peroxidation, and induction of foam cell formation. Mediates the 7-oxo reduction of 7-oxol

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

ithocholate mainly to chenodeoxycholate, and to a lesser extent to ursodeoxycholate, both in its free form and when conjugated to glycine or taurine, providing a link between glucocorticoid activation and bile acid metabolism. Catalyzes the synthesis of 7-beta-25-dihydroxycholesterol from 7-oxo-25-hydroxycholesterol in vitro, which acts as ligand for the G-protein-coupled receptor (GPCR) Epstein-Barr virus-induced gene 2 (EBI2) and may thereby regulate immune cell migration.

Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	HSD11B1 hydroxysteroid (11-beta) dehydrogenase 1 [Homo sapiens (human)]
Official Symbol	HSD11B1
Synonyms	HSD11B1; hydroxysteroid (11-beta) dehydrogenase 1; HSD11, HSD11B; corticosteroid 11-beta-dehydrogenase isozyme 1; SDR26C1; short chain

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dehydrogenase/reductase family 26C; member 1; short chain
dehydrogenase/reductase family 26C, member 1; HDL; 11-DH; HSD11; HSD11B;
HSD11L; 11-beta-HSD1; MGC13539;

Gene ID 3290

mRNA Refseq NM_001206741

Protein Refseq NP_001193670

MIM 600713

UniProt ID P28845

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