

Recombinant Human HSD11B2, GST-tagged

Cat. No. HSD11B2-13952H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human HSD11B2 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-405a.a.
Description	There are at least two isozymes of the corticosteroid 11-beta-dehydrogenase, a microsomal enzyme complex responsible for the interconversion of cortisol and cortisone. The type I isozyme has both 11-beta-dehydrogenase (cortisol to cortisone) and 11-oxoreductase (cortisone to cortisol) activities. The type II isozyme, encoded by this gene, has only 11-beta-dehydrogenase activity. In aldosterone-selective epithelial tissues such as the kidney, the type II isozyme catalyzes the glucocorticoid cortisol to the inactive metabolite cortisone, thus preventing illicit activation of the mineralocorticoid receptor. In tissues that do not express the mineralocorticoid receptor, such as the placenta and testis, it protects cells from the growth-inhibiting and/or pro-apoptotic effects of cortisol, particularly during embryonic development. Mutations in this gene cause the syndrome of apparent mineralocorticoid excess and hypertension.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.

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Storage Buffer

1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

GENE INFORMATION
Gene Name

HSD11B2 hydroxysteroid (11-beta) dehydrogenase 2 [Homo sapiens]

Official Symbol

HSD11B2

Synonyms

HSD11B2; hydroxysteroid (11-beta) dehydrogenase 2; corticosteroid 11-beta-dehydrogenase isozyme 2; SDR9C3; short chain dehydrogenase/reductase family 9C; member 3; 11-DH2; 11-beta-HSD2; -HSD11 type II; 11-beta-hydroxysteroid dehydrogenase type 2; 11-beta-hydroxysteroid dehydrogenase type II; NAD-dependent 11-beta-hydroxysteroid dehydrogenase; short chain dehydrogenase/reductase family 9C member 3; AME; AME1; HSD2; HSD11K;

Gene ID

3291

mRNA Refseq

NM_000196

Protein Refseq

NP_000187

MIM

614232

UniProt ID

P80365

**Chromosome
Location**

16q22

Pathway

Aldosterone-regulated sodium reabsorption, organism-specific biosystem;
Aldosterone-regulated sodium reabsorption, conserved biosystem; C21-Steroid

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hormone biosynthesis, progesterone => cortisol/cortisone, organism-specific biosystem; C21-Steroid hormone biosynthesis, progesterone => cortisol/cortisone, conserved biosystem; Glucocorticoid &

Function

11-beta-hydroxysteroid dehydrogenase [NAD(P)] activity; NAD binding; oxidoreductase activity; steroid binding;

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