Recombinant Protein Technical Manual

Recombinant Human SULT1A3 Protein (His Tag)(Active)

RPES1614

Product Data:

Product SKU: RPES1614

Size: 20µg

Species: Human

Expression host: E. coli

Uniprot: NP_808220.1

Protein Information:

Molecular Mass: 30.5 kDa

AP Molecular Mass: 34 kDa

Tag: N-His

Bio-activity: Measured by its ability to transfer sulfate from PAPS to 1-Napthol. The specific activity is > 150 pmoles/min/µg.

Purity: > 94 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

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

Formulation: Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4

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

Application:

Synonyms: Sulfotransferase 1A3/1A4; ST1A3/ST1A4; Aryl Sulfotransferase 1A3/1A4; Catecholamine-Sulfating Phenol Sulfotransferase; HAST3; M-PST; Monoamine-Sulfating Phenol Sulfotransferase; Placental Estrogen Sulfotransferase; Sulfotransferase Monoamine-Preferring; Thermolabile Phenol Sulfotransferase; TL-PST; SULT1A3; STM; SULT1A4;HAST;HAST3;M-PST;ST1A5;STM

Immunogen Information:

Sequence: Glu2-Leu295

Background:

SULT1A3 belongs to the sulfotransferase 1 family. Sulfotransferase enzymes catalyze the sulfate conjugation of many hormones, neurotransmitters, drugs, and xenobiotic compounds. They are different in their tissue distributions and substrate specificities while their gene structure (number and length of exons) is similar. SULT1A3 gene encodes a phenol sulfotransferase with thermolabile enzyme activity. Four sulfotransferase genes are located on the p arm of chromosome 16; this gene and SULT1A4 arose from a segmental duplication. It is the most centromeric of the four sulfotransferase genes. Exons of this gene overlap with exons of a gene that encodes a protein containing GIY-YIG domains (GIYD1). SULT1A3 is expressed in liver, colon, kidney, lung, brain, spleen, small intestine, placenta and leukocyte. SULT1A3 is a sulfotransferase that utilizes 3'-phospho-5'-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the sulfate conjugation of phenolic monoamines (neurotransmitters such as dopamine, norepinephrine and serotonin) and phenolic and catechol drugs.