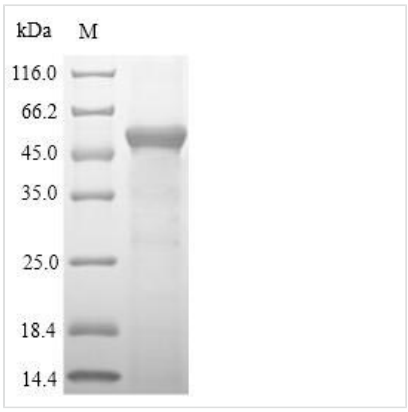
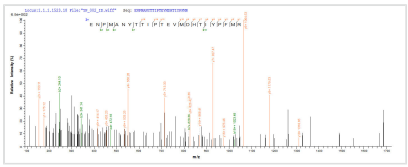
Recombinant Mouse Sulfotransferase 1A1 (Sult1a1)

Product Code	CSB-EP022933MO
Relevance	Sulfotransferase that utilizes 3'-phospho-5'-adenylyl sulfate (PAPS) as sulfonate donor to catalyze the sulfate conjugation of catecholamines, phenolic drugs and neurotransmitters. Has also estrogen sulfotransferase activity. responsible for the sulfonation and activation of minoxidil. Is Mediates the metabolic activation of carcinogenic N-hydroxyarylamines to DNA binding products and could so participate as modulating factor of cancer risk.
Abbreviation	Recombinant Mouse Sult1a1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P52840
Alias	Aryl sulfotransferase Phenol sulfotransferase Phenol/aryl sulfotransferase
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MEPLRKPLVPVKGIPLIKYFAETMEQLQNFTAWPDDVLISTYPKSGTNWMSEIM DMIYQGGKLDKCGRAPVYARIPFLEFSCPGVPPGLETLKETPAPRIIKTHLPLSL LPQSLLDQKIKVIYVARNAKDVVVSYYNFYKMAKLHPDPGTWESFLENFMDGK VSYGSWYQHVKEWWELRRTHPVLYLFYEDMKENPKREIKKILEFLGRSLPEET VDLIVHHTSFKKMKENPMANYTTIPTEVMDHTIYPFMRKGTIGDWKNTFTVAQS EHFDAHYAKLMTGCDFTFRCQI
Research Area	Signal Transduction
Source	E.coli
Target Names	Sult1a1
Protein Names	Recommended name: Sulfotransferase 1A1 Short name= ST1A1 EC= 2.8.2.1 Alternative name(s): Aryl sulfotransferase Phenol sulfotransferase Phenol/aryl sulfotransferase Short name= mSTp1 ST1A4 Sulfokinase
Expression Region	1-291aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	54.0kDa
Protein Length	Full Length

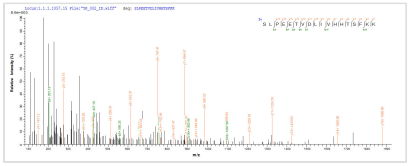
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP022933MO could indicate that this peptide derived from E.coli-expressed Mus musculus (Mouse) Sult1a1.



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Description

To produce recombinant Mouse Sult1a1 protein, a well-established recombinant DNA technology is the key. A DNA template of Sult1a1 was constructed with N-terminal 10xHis-SUMO tag & C-terminal Myc tag using the technique. Once the template was made, the recombinant Mouse Sult1a1 protein could be produced with it efficiently. CUSABIO has built a strict QC system to ensure quality. The expression region is 1-291aa of the Mouse Sult1a1. The purity of this recombinant is 90% determined by SDS-PAGE.

Sult1a1 is a protein coding gene that encodes Sulfotransferase 1A1. According to some studies, Sult1a1 may have the following features.
Several observations have clear implications for the effectiveness of SULT1A1 as a drug and hormone metabolizing enzyme and its potential role as a disease risk factor. Both SULT1A2 and SULT1A1 share a common set of allele-encoded enzymes that function differently and are associated with individual differences in phenol SULT properties in the liver. Changes in SULT1A1 activity contribute to prostate cancer risk, and the magnitude of the association may vary by ethnicity and by meat consumption.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients,

storage temperature and the stability of the protein itself.
Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.