

ORDERING INFORMATION

Catalog Number: AF5826

Lot Number: CDFG01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

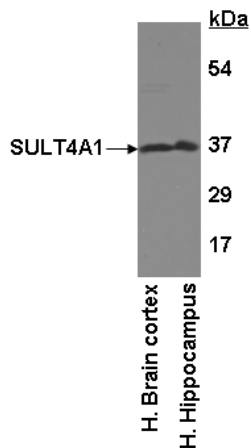
Reconstitution: sterile PBS

Specificity: human SULT4A1

Immunogen: *E. coli*-derived rhSULT4A1 isoform 1

Ig Type: goat IgG

Applications: Western blot
Immunoprecipitation
Immunohistochemistry
Direct ELISA



Detection of SULT4A1 with AF5826.

Tissue lysates were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 1.0 µg/mL goat anti-hSULT4A1.

Background

SULT4A1 (Cytosolic Sulfotransferase 4A1; also BR-STL1/Brain sulfotransferase-like protein) is a 33 - 36 kDa member of the sulfotransferase 4 family of enzymes. SULT4A1 message is widely expressed. However, it appears to be translated only in brain. SULT4A1 is very unusual in that it is the only SULT that shows minimal activity on synthetic laboratory substrates. Instead, it acts on catecholamines and T4 in a manner that may not involve sulfonation. Human SULT4A1 is 284 amino acids (aa) in length. A weak PAPS binding site is found between aa 246 - 254. There are two potential isoforms, one that shows a 13 aa substitution for aa 248 - 284, and a second that contains a 48 aa substitution for aa 202 - 247. Full-length human SULT4A1 is 98% aa identical to mouse SULT4A1.

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant human Cytosolic Sulfotransferase 4A1 isoform 1 (rhSULT4A1; 2 - 284; Accession # Q9BR01). Human SULT4A1 specific IgG was purified by human SULT4A1 affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize human SULT4A1 in the applications listed below. In direct ELISAs, this antibody shows less than 1% cross-reactivity with rhSULT1A1, rhSULT2A1 and rhSULT1E1.

Applications

Western blot - An antibody concentration of 1.0 µg/mL is recommended.

Immunoprecipitation - This antibody has been used to immunoprecipitate rhSULT4A1 from *E. coli* cell lysates.

Immunohistochemistry - This antibody will detect SULT4A1 in cells and tissues. The working dilution is 3 - 10 µg/mL. Antigen retrieval is recommended.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human SULT4A1. The detection limit for rhSULT4A1 is approximately 0.5 ng/well.

Optimal dilutions should be determined by each laboratory for each application.