Human Cytosolic Sulfotransferase 4A1/SULT4A1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF5826

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SULT4A1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) SULT1A1, rhSULT2A1, and rhSULT1E1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human SULT4A1 isoform 1 Ala2-Leu284 Accession # Q9BR01
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

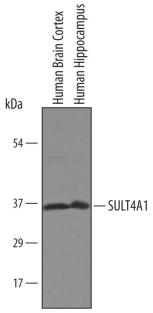
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Cell lysates spiked with Recombinant Human Cytosolic Sulfotransferase 4A1/SULT4A1, see our available Western blot detection antibodies

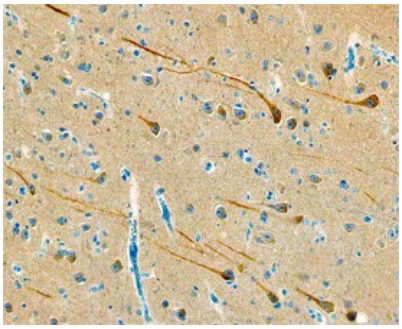
DATA

Western Blot



Detection of Human Cytosolic Sulfotransferase 4A1/SULT4A1 by Western Blot. Western blot shows lysates of human brain cortex and hippocampus tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Cytosolic Sulfotransferase 4A1/SULT4A1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5826) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Cytosolic Sulfotransferase 4A1/SULT4A1 at approximately 36 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



SULT4A1 in Human Brain
SULT4A1 was detected in paraffin-embedded sections of human brain (cortex) using Goat Anti-Human SULT4A1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5826) at 3 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

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