

DESCRIPTION

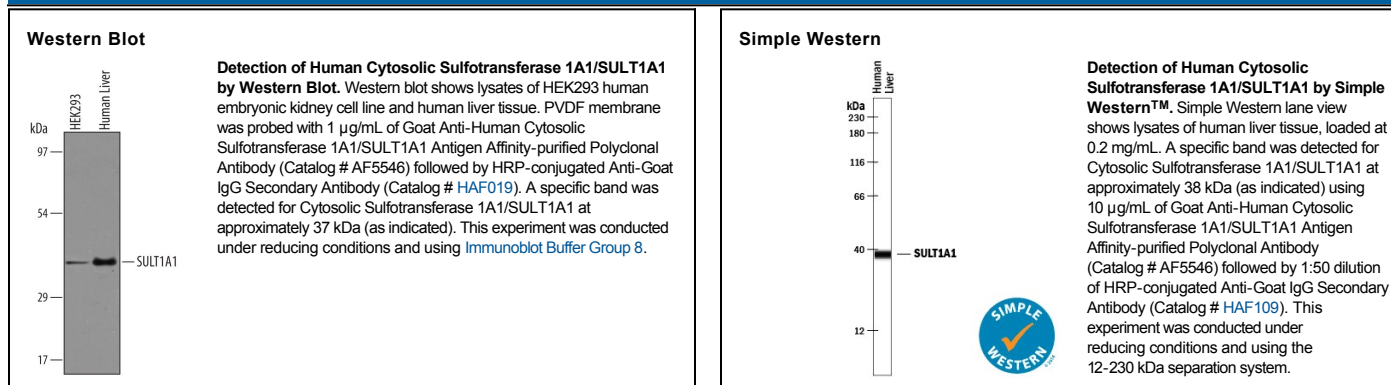
Species Reactivity	Human
Specificity	Detects human Cytosolic Sulfotransferase 1A1/SULT1A1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human SULT1E1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Cytosolic Sulfotransferase 1A1/SULT1A1 Glu2-Leu295 Accession # P50225
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 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
Immunoprecipitation	25 µg/mL	Cell lysates spiked with Recombinant Human Cytosolic Sulfotransferase 1A1/SULT1A1 (Catalog # 5546-ST), see our available Western blot detection antibodies
Simple Western	10 µg/mL	See Below

DATA



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. <ul style="list-style-type: none"> • 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

Cytosolic sulfotransferases catalyze the sulfonation of many hormones, neurotransmitters, drugs, and xenobiotic compounds. They are distinct from Golgi resident sulfotransferases by the absence of transmembrane domains and are located in the cytoplasm (1, 2). SULT1A1 is one of two phenol sulfotransferases with thermostable enzyme activity (2). The enzyme is more specific for sulfonation on catecholamines, phenolic drugs and neurotransmitters (3). Because of its ability to modify diverse promutagen and procarcinogen xenobiotics, it is implicated in a range of cancers (2). The crystal structure of the enzyme reveals that its active site is flexible and can accommodate diverse hydrophobic substrates with varying sizes, shapes and flexibility (4).

References:

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4. Gamage, N. U. *et al.* (2003) *J. Biol. Chem.* **278**:7655.
5. Robbins, P.W. (1962) *Methods in Enzymology*, Vol. V, Academic Press, Inc., New York, 964.
6. MacRae, I.J. *et al.* (2000) *Biochemistry* **39**: 1613.
7. Wu, Z.L. *et al.* (2002) *Faseb J.* **16**:539.