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HS2ST1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7648c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q7LGA3
Other Accession	O93336, Q8R3H7, Q76KB1
Reactivity	Human
Predicted	Chicken, Mouse, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB11924
Calculated MW	41881
Antigen Region	170-200

Additional Information

Gene ID	9653
Other Names	Heparan sulfate 2-O-sulfotransferase 1, 2-O-sulfotransferase, 2OST, 282-, HS2ST1, HS2ST, KIAA0448
Target/Specificity	This HS2ST1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 170-200 amino acids from the Central region of human HS2ST1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HS2ST1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

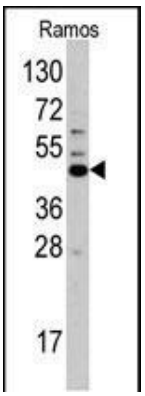
Name	HS2ST1 (HGNC:5193)
Synonyms	HS2ST, KIAA0448

Function	Catalyzes the transfer of a sulfo group from 3'-phospho-5'- adenylyl sulfate (PAPS) to the 2-OH position of iduronic acid (IdoA) or glucuronic acid (GlcA) within the heparan sulfate (HS) chain and participates in HS biosynthesis (By similarity). Required for metanephric development of kidney formation, suggesting that 2-O- sulfation within HS is essential for signaling between ureteric bud and metanephric mesenchyme (By similarity).
Cellular Location	Golgi apparatus membrane {ECO:0000250|UniProtKB:Q8R3H7}; Single-pass type II membrane protein {ECO:0000250|UniProtKB:Q8R3H7}

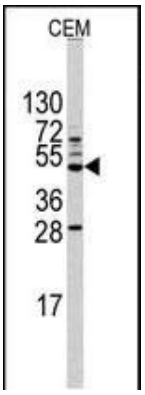
Background

Heparan sulfate biosynthetic enzymes are key components in generating a myriad of distinct heparan sulfate fine structures that carry out multiple biologic activities. This gene encodes heparan sulfate 2-O-sulfotransferase, a member of the heparan sulfate biosynthetic enzyme family. This family member transfers sulfate to the 2 position of the iduronic acid residue of heparan sulfate. The disruption of this gene resulted in no kidney formation in knockout embryonic mice, indicating that the absence of this enzyme may interfere with the signaling required for kidney formation.

Images

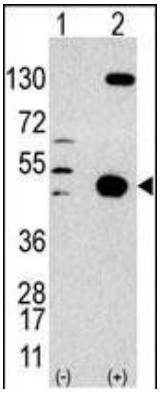


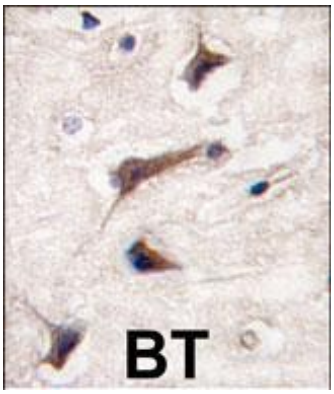
Western blot analysis of anti-HS2ST1 Antibody (Center) Pab (Cat.#AP7648c) in Ramos and CEM cell line lysates. HS2ST1(arrow) was detected using the purified Pab.



Western blot analysis of anti-HS2ST1 Antibody (Center) Pab (Cat.#AP7648c) in 293 cell line lysates transiently transfected with the HS2ST1 gene (2ug/lane). HS2ST1(arrow) was detected using the purified Pab.

Western blot analysis of anti-HS2ST1 Antibody (Center) Pab (Cat.#AP7648c) in 293 cell line lysates transiently transfected with the HS2ST1 gene (2ug/lane). HS2ST1 Antibody (Center)(arrow) was detected using the purified Pab.





Formalin-fixed and paraffin-embedded human brain tissue reacted with HS2ST1 antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- A novel approach for the characterisation of proteoglycans and biosynthetic enzymes in a snail model.