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UXS1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13077B

Product Information

Application	WB, E
Primary Accession	Q8NBZ7
Other Accession	Q5PQX0, Q91XL3, NP_079352.2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33038
Calculated MW	47577
Antigen Region	337-366

Additional Information

Gene ID	80146
Other Names	UDP-glucuronic acid decarboxylase 1, UDP-glucuronate decarboxylase 1, UGD, UXS-1, UXS1
Target/Specificity	This UXS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 337-366 amino acids from the C-terminal region of human UXS1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	UXS1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UXS1 {ECO:0000303|PubMed:22810237, ECO:0000312|HGNC:HGNC:17729}
Function	Catalyzes the NAD-dependent decarboxylation of UDP-glucuronic acid to UDP-xylose (PubMed:22810237, PubMed:23656592, PubMed:25521717,

PubMed:40836090). Necessary for the biosynthesis of the core tetrasaccharide in glycosaminoglycan biosynthesis (PubMed:22810237, PubMed:23656592, PubMed:25521717, PubMed:40836090). Catalyzes the synthesis of UDP-xylose in two steps: the hydroxyl group of UDP- glucuronic acid is first oxidized using an enzyme-bound NAD(+) as electron acceptor, favoring the decarboxylation yielding a UDP-4- ketoxylose reaction intermediate and a reduced cofactor NADH bound to the catalytic pocket (PubMed:22810237, PubMed:40836090). In the second step, the 4-keto group is reduced resulting in UDP-xylose and the restoration of the enzyme to its NAD(+)-bound form (PubMed:22810237, PubMed:40836090).

Cellular Location

Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein. Endoplasmic reticulum membrane; Single-pass type II membrane protein

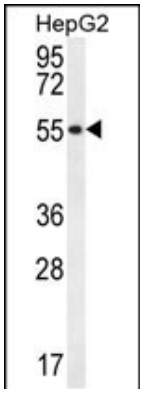
Background

UDP-glucuronate decarboxylase (UGD; EC 4.1.1.35) catalyzes the formation of UDP-xylose from UDP-glucuronate. UDP-xylose is then used to initiate glycosaminoglycan biosynthesis on the core protein of proteoglycans.

References

Bailey, S.D., et al. Diabetes Care (2010) In press :
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
Persson, B., et al. Chem. Biol. Interact. 178 (1-3), 94-98 (2009) :
Bakker, H., et al. J. Biol. Chem. 284(4):2576-2583(2009)

Images



UXS1 Antibody (C-term) (Cat. #AP13077b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the UXS1 antibody detected the UXS1 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.