SANTA CRUZ BIOTECHNOLOGY, INC.

β-1,4-Gal-T7 (P-12): sc-160112

BACKGROUND

β-1,4-galactosyltransferases (β-1,4-Gal-T) are type II membrane-bound glycoproteins that are substrate-specific and function to transfer galactose in a β-1,4 linkage to an acceptor sugar. There are seven members of the β-1,4-Gal-T family, all of which are directed to the Golgi apparatus through a hydrophobic sequence at the N-terminus. β-1,4-Gal-T7, also known as B4GALT7 or XGALT1, is a 327 amino acid single-pass type II membrane protein that is expressed at high levels in heart, pancreas and liver. β-1,4-Gal-T7 uses manganese to catalyze the UDP-dependent biosynthesis of glycosphingolipids. The gene encoding β-1,4-Gal-T7 is mutated in Ehlers-Danlos syndrome progeroid type (EDSP), a variant form of Ehlers-Danlos syndrome characterized by progeroid facies, mild mental retardation, short stature, skin hyperextensibility, moderate skin fragility, joint hypermobility principally in digits.

REFERENCES

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

CHROMOSOMAL LOCATION

Genetic locus: B4GALT7 (human) mapping to 5q35.3; B4galt7 (mouse) mapping to 13 B1.

SOURCE

β-1,4-Gal-T7 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of β-1,4-Gal-T7 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160112 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-1,4-Gal-T7 (P-12) is recommended for detection of β-1,4-Gal-T7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other β-1,4-Gal-T family members.

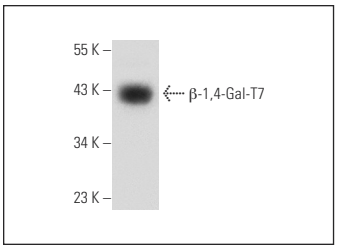
β-1,4-Gal-T7 (P-12) is also recommended for detection of β-1,4-Gal-T7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for β-1,4-Gal-T7 siRNA (h): sc-91927, β-1,4-Gal-T7 siRNA (m): sc-108227, β-1,4-Gal-T7 shRNA Plasmid (h): sc-91927-SH, β-1,4-Gal-T7 shRNA Plasmid (m): sc-108227-SH, β-1,4-Gal-T7 shRNA (h) Lentiviral Particles: sc-91927-V and β-1,4-Gal-T7 shRNA (m) Lentiviral Particles: sc-108227-V.

Molecular Weight of β-1,4-Gal-T7: 37 kDa.

Positive Controls: mouse skeletal muscle tissue extract: sc-364250.

DATA



β-1,4-Gal-T7 (P-12): sc-160112. Western blot analysis of β-1,4-Gal-T7 expression in mouse skeletal muscle tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.