SANTA CRUZ BIOTECHNOLOGY, INC.

# IDS (K-12): sc-131557

## BACKGROUND

IDS (Iduronate 2-sulfatase), also known as SIDS, is a 550 amino acid protein that localizes to the lysosome and belongs to the sulfatase family. Expressed in lung, liver, kidney and placenta, IDS uses calcium as a cofactor to catalyze the hydrolysis of select sulfate groups on dermatan sulfate, heparan sulfate and heparin and, via this catalytic activity, is essential for the lysosomal degradation of both dermatan and heparan sulfate. Defects in the gene encoding IDS are the cause of mucopolysaccharidosis type 2 (MPS2), more commonly known as Hunter syndrome, which is characterized by skeletal deformities, hepatosplenomegaly and progressive cardiopulmonary deterioration, as well as neurological damage and, in some cases, death. IDS exists as two alternatively spliced isoforms, designated long and short.

## REFERENCES


1. Wilson, P.J., et al. 1993. Sequence of the human iduronate 2-sulfatase (IDS) gene. Genomics 17: 773-775.
2. Malmgren, H., et al. 1995. Identification of an alternative transcript from the human iduronate-2-sulfatase (IDS) gene. Genomics 29: 291-293.


## CHROMOSOMAL LOCATION

Genetic locus: IDS (human) mapping to Xq28.

## SOURCE

IDS (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IDS 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-131557 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IDS (K-12) is recommended for detection of IDS isoforms Long and Short of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IDS (K-12) is also recommended for detection of IDS isoforms long and short in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for IDS siRNA (h): sc-90917, IDS shRNA Plasmid (h): sc-90917-SH and IDS shRNA (h) Lentiviral Particles: sc-90917-V.

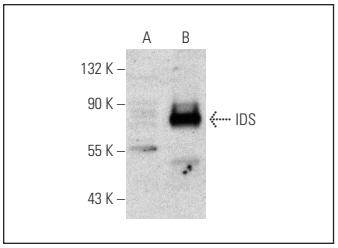
Molecular Weight of IDS: 62 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260.

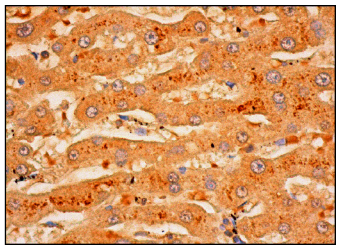
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA




IDS (K-12): sc-131557. Western blot analysis of IDS expression in non-transfected: sc-110760 (**A**) and mouse IDS (S-14) transfected: sc-178771 (**B**) 293 whole cell lysates.



IDS (K-12): sc-131557. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.