SANTA CRUZ BIOTECHNOLOGY, INC.

# NHSL1 (C-20): sc-240743

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

NHS (Nance-Horan syndrome protein), also known as congenital cataracts and dental anomalies protein, is a 1,630 amino acid nuclear protein that is implicated in regulation of tooth, brain, eye and craniofacial development. Defects in the gene encoding NHS are the cause of Nance-Horan syndrome (NHS) and cataract congenital X-linked (CXN). Nance-Horan syndrome is a rare disorder characterized by dental anomalies, cataracts, dysmorphic features, and occasionally mental retardation. CXN is an X-linked form of cataracts in which males are affected more severely than females. NHSL1 (NHS-like 1) is a 1,610 amino acid protein that is widely expressed but found at highest levels in adult intestine, kidney, liver, lens and brain, as well as fetal eyes and brain. A member of the NHS family, NHSL-1 exists as two alternatively spliced isoforms that are encoded by a gene that maps to human chromosome 6q23.3.

## REFERENCES


1. van Dorp, D.B. and Delleman, J.W. 1979. A family with X-chromosomal recessive congenital cataract, microphthalmia, a peculiar form of the ear and dental anomalies. J. Pediatr. Ophthalmol. Strabismus 16: 166-171.
2. Walpole, I.R., et al. 1990. The Nance-Horan syndrome. J. Med. Genet. 27: 632-634.
3. Francis, P.J., et al. 2002. A locus for isolated cataract on human Xp. J. Med. Genet. 39: 105-109.
4. Burdon, K.P., et al. 2003. Mutations in a novel gene, NHS, cause the pleiotropic effects of Nance-Horan syndrome, including severe congenital cataract, dental anomalies, and mental retardation. Am. J. Hum. Genet. 73: 1120-1130.
5. Brooks, S.P., et al. 2004. Identification of the gene for Nance-Horan syndrome (NHS). J. Med. Genet. 41: 768-771.
6. Brooks, S., et al. 2004. Refinement of the X-linked cataract locus (CXN) and gene analysis for CXN and Nance-Horan syndrome (NHS). Ophthalmic Genet. 25: 121-131.
7. Florijn, R.J., et al. 2006. New mutations in the NHS gene in Nance-Horan Syndrome families from the Netherlands. Eur. J. Hum. Genet. 14: 986-990.
8. Coccia, M., et al. 2009. X-linked cataract and Nance-Horan syndrome are allelic disorders. Hum. Mol. Genet. 18: 2643-2655.


## CHROMOSOMAL LOCATION

Genetic locus: NHSL1 (human) mapping to 6q23.3.

## SOURCE

NHSL1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NHSL1 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-240743 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NHSL1 (C-20) is recommended for detection of NHSL1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with NHS or NHSL2.

Suitable for use as control antibody for NHSL1 siRNA (h): sc-95109, NHSL1 shRNA Plasmid (h): sc-95109-SH and NHSL1 shRNA (h) Lentiviral Particles: sc-95109-V.

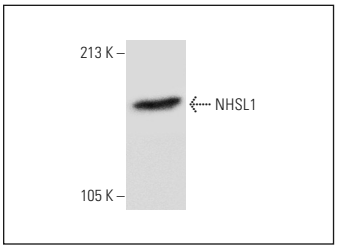
Molecular Weight of NHSL1 isoform 1/2: 171/170 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## 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.

## DATA




NHSL1 (C-20): sc-240743. Western blot analysis of NHSL1 expression in HL-60 whole cell lysate.

## 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.