

# HYLS1 (F-12): sc-393492

## BACKGROUND

The hydrolethalus syndrome protein 1 (HYLS1) is a widely conserved protein that plays an essential role in cilia formation. A single amino acid mutation in the HYLS1 gene leads to a perinatal lethal disorder termed hydrolethalus syndrome, a severe fetal malformation syndrome characterized by central nervous system (CNS) malformation such as hydrocephaly and absent mid-line structures of the brain, micrognathia, defective lobation of the lungs and polydactyly. The gene encoding HYLS1 maps to human chromosome 11, which makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded *Atm* gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. *Atm* mutation leads to the disorder known as ataxia-telangiectasia.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: HYLS1 (human) mapping to 11q24.2; Hyls1 (mouse) mapping to 9 A4.

## SOURCE

HYLS1 (F-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 38-57 within an internal region of HYLS1 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393492 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

HYLS1 (F-12) is recommended for detection of HYLS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for HYLS1 siRNA (h): sc-96710, HYLS1 shRNA Plasmid (h): sc-96710-SH and HYLS1 shRNA (h) Lentiviral Particles: sc-96710-V.

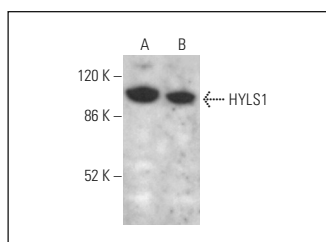
Molecular Weight of HYLS1: 40 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or SK-MEL-24 whole cell lysate: sc-364259.

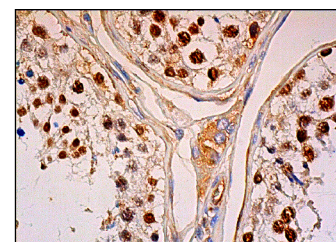
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



HYLS1 (F-12): sc-393492. Western blot analysis of HYLS1 expression in IMR-32 (A) and SK-MEL-24 (B) whole cell lysates.



HYLS1 (F-12): sc-393492. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

## RESEARCH USE

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