

## ITI-H5L (C-20): sc-243126

### BACKGROUND

ITI-H5L (inter- $\alpha$ -trypsin inhibitor heavy chain H5-like protein), also known as ITIH6 or UNQ6369, is a 1,313 amino acid secreted protein. Belonging to the interalpha trypsin inhibitor heavy chain (ITIH) family, ITI-H5L contains one VIT domain and a VWFA domain. Composed of two heavy chains and one light chain, inter- $\alpha$  trypsin inhibitors (ITIs) exhibit protease-inhibitor function via the light chain and protein-protein interaction mediating via the heavy chains. The gene encoding ITI-H5L maps to the human X chromosome, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

### REFERENCES

- Salier, J.P., Diarra-Mehrpour, M., Sesboue, R., Bourguignon, J., Benarous, R., Ohkubo, I., Kurachi, S., Kurachi, K. and Martin, J.P. 1987. Isolation and characterization of cDNAs encoding the heavy chain of human inter- $\alpha$ -trypsin inhibitor (I  $\alpha$  TI): unambiguous evidence for multipolypeptide chain structure of I  $\alpha$  TI. *Proc. Natl. Acad. Sci. USA* 84: 8272-8276.
- Himmelfarb, M., Klopocki, E., Grube, S., Staub, E., Klamann, I., Hinzmann, B., Kristiansen, G., Rosenthal, A., Dürst, M. and Dahl, E. 2004. ITIH5, a novel member of the inter- $\alpha$ -trypsin inhibitor heavy chain family is downregulated in breast cancer. *Cancer Lett.* 204: 69-77.
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.
- Veeck, J., Chorovicer, M., Naami, A., Breuer, E., Zafrakas, M., Bektas, N., Dürst, M., Kristiansen, G., Wild, P.J., Hartmann, A., Knuechel, R. and Dahl, E. 2008. The extracellular matrix protein ITIH5 is a novel prognostic marker in invasive node-negative breast cancer and its aberrant expression is caused by promoter hypermethylation. *Oncogene* 27: 865-876.
- Veeck, J., Breuer, E., Rose, M., Chorovicer, M., Naami, A., Bektas, N., Alkaya, S., von Serényi, S., Horn, F., Hartmann, A., Knüchel, R. and Dahl, E. 2008. Novel prognostic marker in invasive breast cancer. ITIH5 expression is abrogated by aberrant promoter methylation. *Pathologie* 29 Suppl. 2: 338-346.
- Helderman-van den Enden, A.T., de Jong, R., den Dunnen, J.T., Houwing-Duistermaat, J.J., Kneppers, A.L., Ginjaar, H.B., Breuning, M.H. and Bakker, E. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. *Clin. Genet.* 75: 465-472.

### CHROMOSOMAL LOCATION

Genetic locus: ITIH6 (human) mapping to Xp11.22.

### SOURCE

ITI-H5L (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ITI-H5L 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  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243126 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

ITI-H5L (C-20) is recommended for detection of ITI-H5L of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for ITI-H5L siRNA (h): sc-91044, ITI-H5L shRNA Plasmid (h): sc-91044-SH and ITI-H5L shRNA (h) Lentiviral Particles: sc-91044-V.

Molecular Weight of ITI-H5L: 143 kDa.

### 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) 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.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.