

# KIAA1166 (T-15): sc-240593

## BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. KIAA1166, also known as HCA127 (hepatocellular carcinoma-associated antigen 127) or ZC4H2 (zinc finger, C4H2 domain containing), is a 224 amino acid protein that exists as three isoforms produced by alternative splicing events. The gene encoding KIAA1166 maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

## REFERENCES

1. Kato, N., et al. 1990. Human proviral mRNAs down regulated in chorio-carcinoma encode a zinc finger protein related to Krüppel. *Mol. Cell. Biol.* 10: 4401-4405.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Bray, P., et al. 1991. Characterization and mapping of human genes encoding zinc finger proteins. *Proc. Natl. Acad. Sci. USA* 88: 9563-9567.
4. Coy, J.F., et al. 1996. Isolation, differential splicing and protein expression of a DNase on the human X chromosome. *Cell Death Differ.* 3: 199-206.
5. Bernardino-Sgheri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
6. Cantagrel, V., et al. 2004. Disruption of a new X linked gene highly expressed in brain in a family with two mentally retarded males. *J. Med. Genet.* 41: 736-742.

## CHROMOSOMAL LOCATION

Genetic locus: ZC4H2 (human) mapping to Xq11.1; Zc4h2 (mouse) mapping to X C3.

## SOURCE

KIAA1166 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KIAA1166 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-240593 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KIAA1166 (T-15) is recommended for detection of KIAA1166 of mouse, rat and 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); non cross-reactive with other KIAA family members.

Suitable for use as control antibody for KIAA1166 siRNA (h): sc-90908, KIAA1166 siRNA (m): sc-140970, KIAA1166 shRNA Plasmid (h): sc-90908-SH, KIAA1166 shRNA Plasmid (m): sc-140970-SH, KIAA1166 shRNA (h) Lentiviral Particles: sc-90908-V and KIAA1166 shRNA (m) Lentiviral Particles: sc-140970-V.

Molecular Weight of KIAA1166: 26 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.