Anti-Tektin-2/Tectin-t antibody, rabbit polyclonal

Product code	73-071
Size	100 µg
Storage	-20℃
Concentration	1.0 mg/ml
Buffer	PBS- with 50% glycerol
Purity	Purified IgG fraction with protein A from rabbit antiserum
Immunogen	Purified Tektin-2 with Hit tag expressed in E.coli.
Isotype	Rabbit IgG
Reactivity	Human, Mouse
Special notes	N/A
Application	1. Western blotting (1-10µg/ml) 2. Immunofluorescence staining (1-20µg/ml)
Background	Tektins are a class of proteins that form filamentous polymers in the walls of ciliary and flagellar microtubules. Tektin-2 (tektin-t) is a member of the tektin family, identified from a mouse haploid germ cell-specific cDNA library. In mice, tektin-t protein has been localized to the tail of mature sperm. A human orthologue of mouse haploid germ cell-specific tektin-2 showed 82 and 83% identity with mouse tektin-2 respectively. Included were a sequence conserved in the tektin B1 family, the TEKTIN2 motif, and the consensus sequence in the tektin protein family composed of nona-peptide. Human tektin-2 protein, having a molecular weight of 54 kDa, was exclusively expressed in the testis, whereas two additional stronger bands of 46 and 56 kDa existed in sperm. The h-tektin-2 localized specifically to the principal piece of flagella and to the post-acrosomal region. The h-tektin-2 gene was assigned to chromosome 1 by a radiation hybrid mapping technique. **Molecular mass:** Mouse 50 kDa
Data Link	UniPlotKB Q922G7 (TEKT2_MOUSE) Q9UIF3 (TEKT2_HUMAN)

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: Anti-Tektin-2 / Tectin-t antibody, rabbit polyclonal

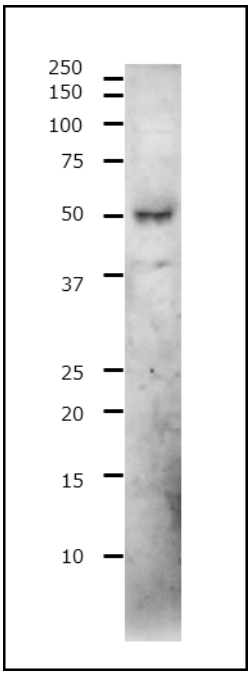

Fig.1 Western Blot of Tektin-2 protein

Applied sample; 50μg of mouse testis whole lysate.

Primary antibody; 1μg/ml of anti-Tektin-2 (Tektin-t) antibody

Secondary antibody; 1/10,000 dilution of goat anti-rabbit IgG antibody HRP-conjugated, ab97051)

Molecular mass of Tektin-2; 50 kDa

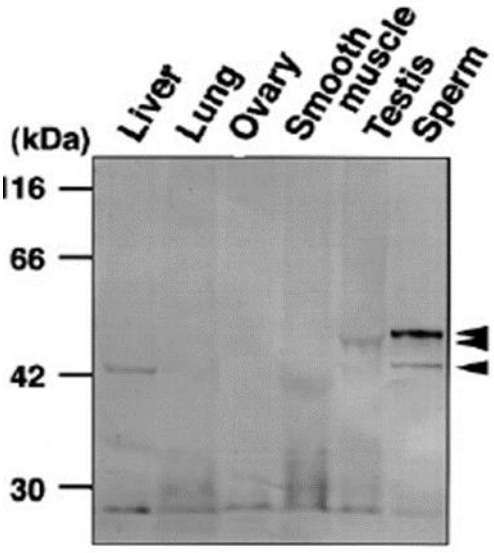

Fig.2 Western blot analysis of h-tektin-t in human organ. Approximately 50 μg of protein sample was loaded in each lane, separated by 10% SDS-PAGE, transferred onto PVDF membrane. The membrane was incubated in 5% skim milk for blocking and reacted with anti-Tektin-t antiserum diluted 1,000 fold with TBS. Goat anti-rabbit IgG antibody conjugated with HRP was used as the second antibody.

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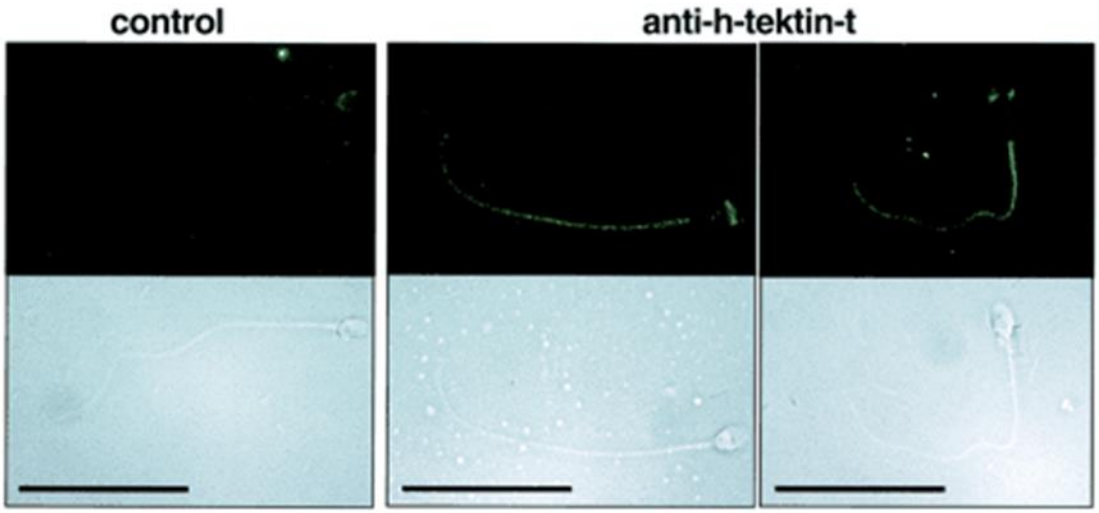

Fig.3 Immunofluorescence microscopic images of human sperm. Human sperm were immunostained with anti-h-tektin-t rabbit antiserum. As a control, pre-immune rabbit serum was used (control). Phase contrast microscopic images of the sperm are presented in the lower panel. Original magnification is ×1000. Scale bar = 50 µm.

Human sperm samples were separated from semen by washing with phosphate-buffered saline and spotted onto slide glass. The sperm samples were fixed with 100% EtOH for 10 min on ice. After blocking, the slides were incubated with anti-h-tektin-t rabbit antiserum (diluted 1:1000) overnight at 4°C and then treated with 5% normal donkey serum for 30 min at room temperature. Then the slides were incubated with FITC-conjugated anti-rabbit IgG antibody (1:500) for 2 h at room temperature. The samples were examined under a fluorescence microscope.

Reference: This product has been used in the following publication (Ref.2, 3).

1. Iguchi N, Tanaka H, Nishimune Y, *et al.* Molecular cloning of haploid germ cell-specific tektin cDNA and analysis of the protein in mouse testis. FEBS Letters 456(2)315-321(1999) PMID: 11870087. **WB, IF**
2. Tanaka H, Nishimune Y, *et al.* Mice deficient in the axonemal protein Tektin-t exhibit male infertility and immotile-cilium syndrome due to impaired inner arm dynein function. Mol Cell Biol 18 7958-7964 (2004) PMID: 15340058. **WB, IF (mouse)**
3. Iguchi N, Tanaka H, Nishimune Y, *et al.* Cloning and characterization of the human tektin-t gene. Mol Hum Reprod (6)525-530 (2002) PMID: 12029069. **WB, IF (human)**

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