PRODUCT INFORMATION

Product name： DNM2 antibody

Product type： Primary antibodies

Description： Rabbit polyclonal to DNM2

Immunogen： 3 synthetic peptides (human) conjugated to KLH

Reacts with： Hu, Ms

Tested applications： ELISA and WB

GENE INFORMATION

Gene Symbol： DNM2

Gene Name： dynamin 2

Ensembl ID： ENSG00000079805

Entrez GeneID： 1785

Omim ID： 602378

Swiss-Prot： P50570

Molecular weight of DMN2： 98.064kDa (Isoform 1) and 97652kDa (Isoform 2)

Function： Microtubule-associated force-producing protein involved in producing microtubule bundles and able to bind and hydrolyze GTP. Most probably involved in vesicular trafficking processes, in particular endocytosis.

Expected subcellular localization： Cytoplasm. Cytoplasm › cytoskeleton. Cell junction › synapse › postsynaptic cell membrane › postsynaptic density. Cell junction › synapse.

Note: Microtubule-associated. Also found in the postsynaptic density of neuronal cells.

Expected tissue specificity： Ubiquitously expressed.

Involvement in disease： Defects in DNM2 are a cause of centronuclear myopathy autosomal dominant (ADCNM) [MIM:160150]; also known as autosomal dominant myotubular myopathy. Centronuclear myopathies (CNMs) are congenital muscle disorders characterized by progressive muscular weakness and wasting involving mainly limb girdle, trunk, and neck muscles. It may also affect distal muscles. Weakness may be present during childhood or adolescence or may not become evident until the third decade of life. Ptosis is a frequent clinical feature. CNMs comprise a wide spectrum of phenotypes, ranging from severe neonatal to mild late-onset familial forms. The most prominent histopathologic features include high frequency of centrally located nuclei in muscle fibers not secondary to regeneration, radial arrangement of sarcoplasmic strands around the central nuclei, and predominance and hypotrophy of type 1 fibers. Ref.12 Ref.13

Defects in DNM2 are the cause of Charcot-Marie-Tooth disease dominant intermediate type B (CMTDIB) [MIM:606482]. Charcot-Marie-Tooth disease (CMT) is a clinically and genetically heterogeneous disorder of the peripheral nervous system, characterized by progressive weakness and atrophy, initially of the peroneal muscles and later of the distal muscles of the arms. CMTDIB is a form of Charcot-Marie-Tooth disease characterized by clinical and pathologic features intermediate between demyelinating and axonal peripheral neuropathies, and motor median nerve conduction velocities ranging from 25 to 45 m/sec.

APPLICATION NOTE

Recommended dilution：

- **ELISA: Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/90000 is determined for one of the three peptides. Appropriate specificity controls were run.**
- **WB: 1/1000.**

Optimal dilutions/concentration should be determined by the end user.

Raised in： Rabbit

Clonality： Polyclonal

Isotype： IgG

Purity： Crude serum, final bleed

Storage Buffer： 50% Glycerol containing a final concentration of 0.1% BSA and 0.01% Thimerosal.

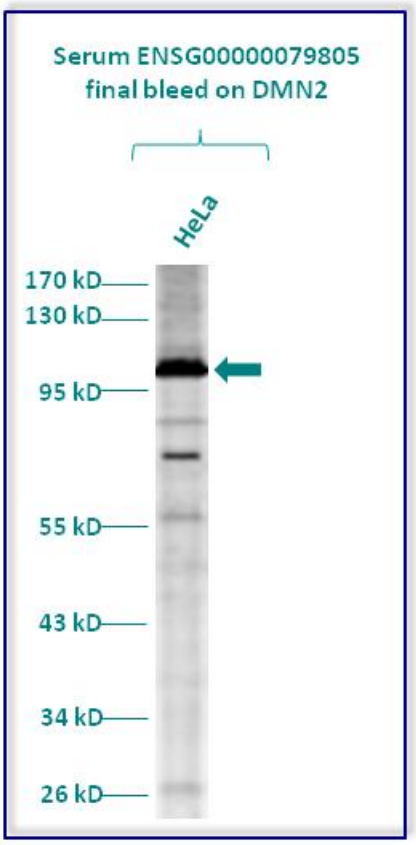
Form： Liquid

Storage instruction： Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

WESTERN BLOT ON HUMAN CELL LINE

Western blot analysis of DMN2 expression in protein extract of HeLa (Human cervix adenocarcinoma) cell line. The serum ENSG00000079805 has been tested at 1/100.

Molecular weight of DMN2 : 98.064kDa (isoform 1) and 97652kDa (isoform 2)



Gel concentration: 10%
Blocking: 60 minutes at RT in 5% non-fat milk-PBST solution
1st Antibody: The antibody is diluted in blocking buffer.

- **Dilute serum at 1:100 in Blocking buffer**

60 minutes of incubation
2nd Antibody: The antibody is diluted in blocking buffer.

- **Dilute the anti-Rabbit IgG HRP conjugated at 1/1000**

60 minutes of incubation