

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SOX6 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) SOX5 or rhSOX13 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 667136
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human SOX6 Met1-Leu339 Accession # P35712
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SOX6 is a 92 kDa member of the Sox [Sry-related high mobility group (HMG) box] DNA binding protein family, and initially was isolated from an adult testis cDNA library. Human SOX6 is 828 amino acids (aa) in length. Aa 184-262 constitute a coiled-coil region. Aa 219-261, 280-285, and 313-317 make up a Glu-rich and two poly-Ala regions, respectively. Also, there are two additional isoforms for SOX6. Isoform 2 is formed by the deletion of aa 327-367 found in isoform 1, and isoform 3 is formed by the deletion of aa 579-598 found in isoform 1. Finally, aa 620-683 make up the SOX-TCF-HMG-box region. Human SOX6 shares 97% aa identity with mouse SOX6. Previous studies have suggested that SOX6 plays a role in the development of the central nervous system (CNS) and chondrogenesis. Another study, however, revealed that the mutant pLOOH allele, which is located on the same chromosome as SOX6, develops myopathy and an atrioventricular (AV) heart block, a cardiac conduction defect that is a main cause of death in human cardiac myopathies. Electronmicroscopic evaluation of the mutant cardiac and skeletal muscle demonstrated significant change in ultrastructure. Thus, the phenotype of the pLOOH mutation suggests that the SOX6 protein also may be involved in maintaining normal physiological functions of muscle tissue, including the heart. In addition genome-wide association studies have found that the SOX6 gene plays an important role in the coregulation of obesity and osteoporosis. Moreover, SOX6 has been shown to be a transcriptional factor that is specifically expressed in the developing nervous system and in the early stages of chondrogenesis in mouse embryos, and it has been revealed that SOX6 was expressed in glioma tissues, but not in normal adult brain tissue.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.