

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Sirtuin 5/SIRT5 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) SIRT1, rhSIRT2, and rhSIRT6 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Sirtuin 5/SIRT5 Met33-Ser310 Accession # Q9NXA8
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	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

Sirtuin 5 (SIRT5; SIR2-like protein 5) is a 28-35 kDa class III member of the sirtuin protein family. It is found in the mitochondrial matrix and is involved in ammonia detoxification. In particular, it deacetylates carbamoyl phosphate synthetase 1/CPS1, thus activating it and allowing for ammonia condensation with bicarbonate and ATP. This is a crucial step in urea formation during prolonged fasting or the use of a high-protein diet. Human SIRT5 is 310 amino acids (aa) in length. It possesses a sirtuin-type deacetylase domain (aa 41-309) that contains an NAD binding motif (Thr276:Glu277:Pro292). There are three potential isoform variants that show aa substitutions at the C-terminus. One contains a 14 aa substitution for aa 286-310, a second shows a 15 aa substitution for aa 287-310, and the third shows a 17 aa substitution for aa 207-310. Full-length human and mouse SIRT5 share 86% aa identity.

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.