

DESCRIPTION

Species Reactivity	Human/Porcine/Canine
Specificity	Detects human CD90/Thy1 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse CD90 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human CD90/Thy1 Gln20-Ser141 Accession # P04216
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	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

CD90 (also Thy1/Thymus cell antigen 1) is a 25-35 kDa glycoprotein member of the Immunoglobulin superfamily of molecules. It is expressed on neurons, ovarian follicular cells, endothelial cells, fibroblasts and circulating CD34⁺ stem cells, and appears to act as an adhesion molecule. CD90 is known to bind to integrins β2, β5 and β3, the latter often accompanied by additional binding to syndecan-4. In the postnatal nervous system, this inhibits neurite outgrowth while stabilizing newly formed axonal networks. In the vascular system, CD90 mediates the extravasation of leukocytes. And in lung, a CD90:αvβ5 interaction inhibits the extracellular activation of latent TGF-β. Mature human CD90 is a 111 amino acid (aa) GPI-linked protein (aa 20-130). It contains one V-type Ig-like domain (aa 20-126) with a heparin-binding motif (aa 56-60), and a GPI-anchor amidated cysteine at position 130. The integrin binding site consists of an Arg35LeuAsp37 tripeptide. CD90 apparently forms 50-60 kDa homodimers and 150 kDa homomultimers. There is one potential isoform variant that contains a 12 aa substitution for aa 1-13. Over aa 20-141, human CD90 shares 64% aa identity with mouse CD90 and 84% or 83% with horse and dog respectively.

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.