

12-1257: Anti-TRAcP (Tartrate-Resistant Acid Phosphatase) (Hairy Cell Leukemia Marker) Recombinant Mouse Monoclonal Antibody (Clone:rACP5/1070)

Clonality :	Monoclonal
Clone Name :	rACP5/1070
Application :	IHC
Reactivity :	Human, Mouse, Rat
Gene :	ACP5
Gene ID :	54
Uniprot ID :	P13686
Format :	Purified
Alternative Name :	Acid phosphatase 5, tartrate resistant; ACP5; serum band 5 tartrate-resistant acid phosphatase; SPENCDI; Tartrate-resistant acid ATPase; Tartrate-resistant acid phosphatase type 5; TR-AP; TRACP5; TRAcP; TRAP; TrATPase; Type 5 acid phosphatase
Isotype :	Mouse IgG1, kappa
Immunogen Information :	Recombinant full-length human ACP5 protein

Description

It recognizes a protein of 35kDa, which is identified as tartrate-resistant acid phosphatase (TRAcP). It exists as two isoforms (5a and 5b). This MAb reacts with both the isoforms. Serum TRAcP 5a is secreted by macrophages and dendritic cells and increased in many patients of rheumatoid arthritis. Serum TRAcP 5b is produced from osteoclasts and elevated during bone resorption. TRAcP is an iron containing glycoprotein, which catalyzes the conversion of orthophosphoric monoester to alcohol and orthophosphate. It is the most basic of the acid phosphatases and is the only form not inhibited by L(+)-tartrate. TRAcP is synthesized as a latent proenzyme and is activated by proteolytic cleavage and reduction. Normally, TRAcP is highly expressed by osteoclasts, activated macrophages, neurons and endometrium during pregnancy. Expression of TRAcP is increased in certain pathological conditions such as Leukemic Reticuloendotheliosis (Hairy Cell Leukemia), Gaucher's Disease, HIV-induced Encephalopathy, Osteoclastoma and in osteoporosis and metabolic bone diseases. Anti-TRAcP antibody labels the cells of Hairy Cell Leukemia (HCL) with a high degree of sensitivity and specificity. Other cells stained with this antibody are tissue macrophages and osteoclasts.

Product Info

Amount :	20 µg / 100 µg
Purification :	Protein A/G
Content :	200µg/ml of recombinant MAb purified by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage condition :	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

Application Note

Immunohistochemistry (Formalin-fixed) (1-2 µg/ml for 30 minutes at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes);

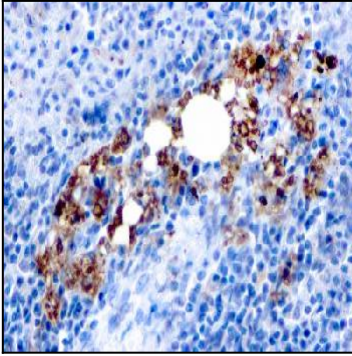


Figure 1: Formalin-fixed, paraffin-embedded human Spleen stained with TRAcP Mouse Recombinant Monoclonal Antibody (rACP5/1070).

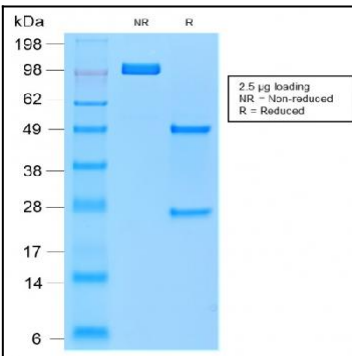


Figure 2: SDS-PAGE Analysis of Purified TRAcP Mouse Recombinant Monoclonal Antibody (rACP5/1070).

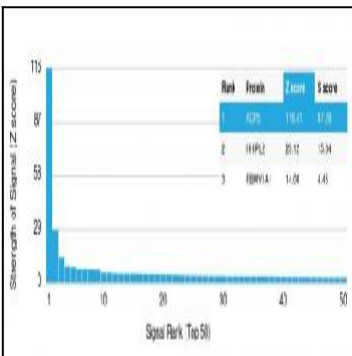


Figure 3: Analysis of Protein Array containing more than 19,000 full-length human proteins using TRAcP Mouse Recombinant Monoclonal Antibody (rACP5/1070). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.