CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	TRACP5, Human, clone 162		
Catalog number	HM2307-20UG		
Lot number	-	**Expiry date**	-
Volume	200 µl	**Amount**	20 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #		1					1	1
Yes						●	●	●
No		●						
N.D.	●		●	●	●			

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- W: A non-reduced and reduced sample treatment and SDS-Page was used. The band size(s) are 14 and 35 kDa (Ref.1).
- Positive control: Granular cell tumor of the skin and ductal carcinoma of the breast; Negative control: Mouse IgG at 1 µg/mL (Western Blot).

General Information

Description Monoclonal antibody 162 recognizes human tartrate-resistant-acid phosphatase 5 (TRACP5). TRACP is considered a marker for differentiated monocytes like macrophages, dendritic cells and osteoclasts. It is also considered to be a serum marker for bone disease. TRACP has two isotypes (5a &5b) with different characteristics. Isoform 5a is intact and bears a sialic acid and has a lower activity and pH optimum (pH5.0-5.2) than TRACP5b (pH5.8-6.0). TRACP5a circulates as a 35kD glycoprotein and 5b as a linked heterodimer of proteolytically cleaved16 & 23 kDa fragments. TRACP5a has unique epitopes associated with the intact loop peptide. Serum TRACP protein is predominantly isoform 5a, while most of the activity is due to isoform 5b. TRACP5a, but not 5b is secreted by activated macrophages and dendritic cells and is therefore considered a marker for systemic macrophage and chronic inflammation. TRACP 5a levels are correlated positively with inflammation-related markers CRP, ferritin, and triglycerides, which are also elevated in cardiovascular patients (CVD), but have no relationship to TRAP 5b activity or other bone metabolic markers. TRACP5a is a specific secreted marker of inflammatory macrophage. TRACP5b is a marker for osteoclast number and bone resorption. The clinical significance of TRACP5a is not completely clear yet. TRACP5a levels are elevated in end stage renal disease, 30% of rheumatoid arthritis patients and was positively correlated with body mass and fat indices (adipose tissue macrophages). Elevated serum TRACP5a may be an indicator of advanced or systemic inflammatory disease associated with inflammatory vulnerable plaque and a risk marker for adverse events in CVD. Antibody 162 recognizes the native conformation of TRACP5a and 5b.

Immunogen recombinant TRACP

Aliases TRAP5

References

1. Pradella, S et al; Applications and performance of monoclonal antibodies to human tartrate resistant acid phosphatase. J Immunol Methods. 2011 Sep 30;*372*(1-2):162-70

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	28/12/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.