HycultBiotech

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Cathepsin G, Human, clone HB5A4		
Catalog number	HM2384		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 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 #								
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.

- IA: Antibody HB5A4 can be used as capture and detection antibody.

General Information

Description

Antibody clone HB5A4 recognizes human cathepsin-G (catG). CatG is a serine protease originating from human neutrophils. Neutrophils contain four types of granules: azurophilic, specific, gelatinase and secretory granules. Their content is readily available and released in response to infection or inflammation. Azurophilic granules contain proteases, including neutrophil elastase, proteinase-3 and catG, that degrade extracellular matrix proteins. These proteins have a similar structure with a C-terminal α-helix and two β-barrels. Besides their extracellular role, intracellularly they cleave chemokines and cytokines in order to shape the inflammatory response. Independent of its enzymatic activity, catG is chemotactic for monocytes. CatG is predominantly present in neutrophils but has been identified in other mammalian cells like other myeloid cells. Recently, catG has also been detected in neutrophil traps (NETs) and urine exosomes. The main processes in which catG is involved include, pathogen clearance, regulation of inflammation, endothelial permeability and pathogenesis of some autoimmune diseases like SLE. If there is an imbalance with its inhibitors, like Serpinb1a and Serpinb6a, tissue damage and modulation of inflammation can be induced. CatG is crucial in resistance against infection with Staphylococcus aureus and contributes to protection against several fungal infections. Given the prominent role in inflammation, catG is involved in the pathophysiology of several serious human inflammatory diseases, such as chronic obstructive pulmonary disease (COPD), Crohn's disease, rheumatoid arthritis, cystic fibrosis and other conditions clinically manifested by excessive inflammatory reactions.

Gene Gene name: CTSG Entrez Gene ID 1511 Uniprot P08311

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
Brenda Teunissen

Date
17/09/2019

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

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