

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	Cathepsin G, Human, clone HB1F10	<b>Expiry date</b>	-
<b>Catalog number</b>	HM2385		
<b>Lot number</b>	-	<b>Amount</b>	100 µg
<b>Volume</b>	1 ml	<b>Concentration</b>	100 µg/ml
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Conjugate</b>	None
<b>Host Species</b>	Mouse IgG2b	<b>Purification</b>	Protein G
<b>Endotoxin</b>	N.A.		
<b>Storage</b>	4°C		

**Application notes**

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

N.D.= Not Determined; IHC = Immunohistochemistry; F = Frozen sections; P = Paraffin sections; IF = Immunofluorescence; 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 HB1F10 can be used as capture and detection antibody.

**General Information**

<b>Description</b>	Antibody clone HB1F10 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.		
<b>Gene</b>	Gene name: CTSG	Entrez Gene ID <a href="#">1511</a>	Uniprot <a href="#">P08311</a>
<b>Storage&amp;stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.		
<b>Precautions</b>	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  
24/09/2019

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).