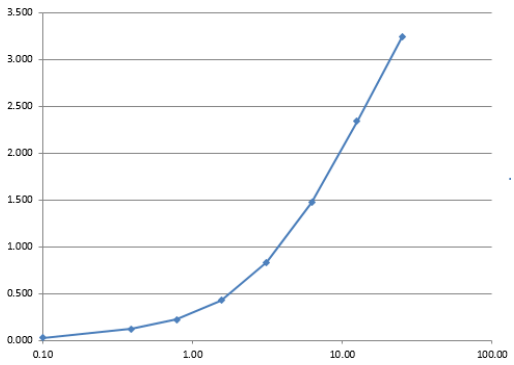
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Elastase, Human, clone 265-3K1		
Catalog number	HM2174-20UG		
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 #		2	2	1	1	1		3
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



IA: Immuno assay experiment with HM2174 as capture antibody.

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: the antibody can be used as capture antibody. Antibody 265-3K1 was unique in that the limit
- of detection as a capture antibody increased from 625 nM (18.8 ng/ml) for free HNE to 80 nM for HNE–AAT complex, indicating that covalent complex formation between HNE and AAT increases antibody affinity or increases exposure of recognised epitope in HNE for 265-3K1 (Ref.1).
- FC: cells were fixed with ADG fixation buffer A for 15 min at room temperature. Cells were washed and incubated with 10 µg of monoclonal anti-HNE antibody diluted in ADG permeabilisation buffer B (Ref.1).
- IF: tissues were fixed in paraformaldehyde (PFA) 3.7%, embedded in paraffin and sectioned at 6 mm. The sections were deparaffinized in toluene and hydrated in graded series of ethanol (Ref.2).

General Information

Description

The monoclonal antibody 265-3K1 recognizes human leukocyte elastase. Leukocyte elastase, a major serine proteinase in man, is predominantly present in the azurophilic granules of neutrophils and monocytes. Elastase has a broad range of extracellular matrix substrates including elastin, proteoglycans, collagen and fibronectin. The action of elastase is controlled by serine proteinase inhibitors. Elastase, when released during inflammation, is rapidly bound by its two main inhibitors, alpha1-PI and alpha2-macroglobuline to form elastase-inhibitor complexes. In addition mucosa secretions may contain the locally secreted elastase inhibitors elafin/SKALP and SLPI. When secreted at sites of inflammation elastase can cause severe tissue damage. An important role has been suggested for human elastase in various inflammatory disorders, including pulmonary emphysema, sepsis, arthritis, nephritis and certain skin diseases. Elastase induces the production of IL-8 in human bronchial epithelial, a process that occurs in part through TLR4.

References

1. Davies, P et al; Monoclonal anti-neutrophil elastase antibody characterisation: ability to block function, detect free versus serpin-complexed enzyme and stain intracellular granules. J Immunol. Meth. 2008, *336*:175
2. Delbosc, S et al; Porphyromonas gingivalis Participates in Pathogenesis of Human Abdominal Aortic Aneurysm by Neutrophil Activation. Proof of Concept in Rats. PLosONE 2011, *6*: e18679
3. Novak, T et al; Oral Ulceration in Behçet's Disease: An Investigation of Neutrophil Elastase and Its Inhibitors. Thesis 2013

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	18/11/2020

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