CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Pentraxin 3, Human, clone MNB4		
Catalog number	HM2242-500UG		
Lot number	xxxxxXxxxx-X	**Expiry date**	MMM YYYY
Volume	xx ml	**Amount**	500 µg
Formulation	0.2 µm filtered in PBS	**Concentration**	>0.5 mg/ml
Host Species	Rat IgG2a	**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.

General Information

Description

The monoclonal antibody MNB4 (previously known as clone 20) recognizes human pentraxin 3 (PTX3), belonging to the long pentraxin family. PTX3 is an acute-phase glycoprotein of ~45 kDa with glycosylation accounting for about 10% of its molecular weight. PTX3 has a complex oligomeric structure with protomers linked to each other by disulfide bonds. PTX3 expression is triggered by inflammatory cytokines, resulting in higher levels of circulating PTX3. Several cell types have been reported to produce PTX3, namely macrophages, endothelial cells, neutrophils and synoviocytes. PTX3 is involved in host defense against pathogen infection, in the regulation of the scavenger activity of macrophages and dendritic cells, and in modulation of complement activity by binding to C1q. Furthermore, PTX3 has been implicated in matrix deposition of cumulus cells. Moreover, PTX3 interacts with other biologically active molecules, causing their functional blockade. This has been demonstrated for fibroblast growth factor-2 (FGF-2), for which PTX3 acts as an inhibitor, leading to inhibition of angiogenesis. PTX3, like other pentraxins C-reactive protein (CRP) and serum amyloid P component (SAP), binds apoptotic cells and debris. PTX3 is useful as an early indicator of myocyte irreversible injury in ischemic cardiomyopathy. PTX3 is not only involved in inflammatory vessel diseases related to atherosclerosis, but also in pre-eclampsia and systemic small vessel ANCA-associated vasulitis, in which neutrophils are key players. The relationship between tissue damage and pentraxin generation is stringent in acute injuries. PTX3 tunes self-non-self-discrimination and tissue repair due to the recognition of diverse ligands by PTX3 and through regulation of effector pathways.

Immunogen

Human recombinant PTX3

Aliases

PTX3, Pentraxin-related protein PTX3, Tumor necrosis factor-inducible gene 14 protein, TSG-14

Gene

Gene name: PTX3, TNFAIP5, TSG14

References

1. Peri, G et al; PTX3, a prototypical long pentraxin, is an early indicator of acute myocardial infarction in humans. Circulation 2000, *102*: 636
2. Fazzini, F et al; PTX3 in small-vessel vasculitides: an independent indicator of disease activity produced at sites of inflammation. Arthritis Rheum 2001, *44*: 2841
3. Bussolati, B et al; The long pentraxin Ptx3 is synthesized in IgA glomerulonephritis and activates mesangial cells. J immunol 2003, *170*: 1466
4. Inforzato, A et al; Structure and function of the long pentraxin PTX3 glycosidic moiety: fine-tuning of the interaction with C1q and complement activation. Biochemistry 2006, *45*: 11540
5. Jaillon, S et al; The humoral pattern recognition receptor PTX3 is stored in neutrophil granules and localizes in extracellular traps. J Exp Med 2007, *204*: 793

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
Robbert Zwinkels	13/01/2020

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