CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Prion PrPSC, clone 1.5D7		
Catalog number	HM5011-20UG		
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 IgG2b	**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							
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 reduced sample treatment and SDS-Page was used. The band size is 30 kDa (Ref.1).
- IHC-P: Paraffin sections were deparaffinized, rehydrated and endogenous peroxidase was quenched using 0.3% H2O2 in methanol for 20 min. As positive control BSE infected brain tissue was used and as negative control non-diseased brain tissue (Ref.1).
- Positive control: Prion diseased brain tissue; Negative control: non-diseased brain tissue.

General Information

Description

The monoclonal antibody 1.5D7 recognizes the disease associated isoform of the prion protein termed PrPSc. Prion diseases, also known as spongiform encephalopathies, are a group of neurodegenerative diseases that include BSE (bovine spongiform encephalopathy) in cattle, scrapie in sheep and CJD (Creutzfeldt-Jakob disease) in humans. The normal cellular form of the prion protein is denoted as PrPC and is a constitutively expressed glycosylphosphatidylinositol anchored protein that has been shown to play a role in myelin formation. PrPC has an unstructured N-terminal part and a C-terminal part consisting of three α -helices and two short β strands. Refolding of the normal prion protein results in PrPSc, which has a tightly packed C-terminal part enriched in beta sheets which is insoluble and resistant to digestion by proteases. Prion diseases are characterized by the deposition of highly structured aggregates of PrPSc, astrocytosis, neuronal cell death and spongiform structures in the brain. These diseases can be sporadically (unknown cause), be inherited due to polymorphisms or mutations in the prion protein gene or be transmitted by an infectious particle which is believed to consist of PrPSc only. In order to study prion diseases the detection of PrPSc and the ability to discriminate between the normal and disease associated PrP is of pivotal importance. The monoclonal antibody 1.5D7 can be used for the specific identification and characterization of PrPSc in tissue sections by immunohistochemistry and PET-blot.

Aliases

Spongiform encephalopathies

Cross reactivity

Human: Yes; Mouse: Yes; Bovine: Yes; Hamster: Yes; Ovine: Yes

References

1. Cordes, H et al. Characterisation of new monoclonal antibodies reacting with prions from both human and animal brain tissues. J Immunol Method 2008, *337*: 106.
2. Bergström, A et al; Short-term study of the uptake of PrPSc by the Peyer's patches in hamsters after oral exposure to scrapie. J Comp Pathol 2006, *134*: 126

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	13/01/2021

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