Product Information

Edition: 2013-04-25

Prion protein specific mAb 9A2, mouse monoclonal antibody for detection of prion protein (PrP)

Article numbers:

9A2/200 for quantity 0.2mg IgG
9A2/500 for quantity 0.5mg IgG

Batch: 051112-PrP-9A2

Shipping: with cool pack

Storage: at 0-5°C ready for use (or aliquot and store at -20°C to avoid repeated freezing/thawing)

Quantity: 0.5mg or 0.2mg IgG (larger quantities on request)

Format: liquid (advice: briefly spin the vial in a centrifuge to dislodge any liquid from the cap)

Concentration: 1.0mg IgG per ml (based on UV280nm measurement with factor 1.43AU@1cm), in PBS pH7.2 as buffer, with 0.02% sodium azide as preservative.

Clone name: 76.9A2

Isotype: IgG1 κ

Purification: purified from culture supernatant by Protein G column chromatograpy, followed by dialysis and 0.2µm membrane filtration.

PrP antigen gene name: Prnp

Immunogen: synthetic peptide with sequence GGGGWGQGGTHGQWNKPSK derived from the amino acid sequence of the wild-type PrP molecule for the bovine species (bovinePrP97-115).

Selection: $Prnp^{0/0}$ mice were injected with the immunogen and spleen cells were fused with SP2/0 myeloma cells.

Epitope: WNK (bovinePrP110-112; derived by Pepscan analysis and confirmed by blocking the binding to PrP with synthetic peptide).

Expected species (cross) reactivity: broad (tested on bovine, ovine, caprine, cervid, murine, hamster, bank vole, simian and human TSEs).

Application: as capturing or detecting antibody in prion research on biological samples, body fluids, cells, tissue sections and homogenates. For use in Western blot, IHC, ELISA, RIA, FACS, immunoprecipitation, dot-blot, PET-blot.

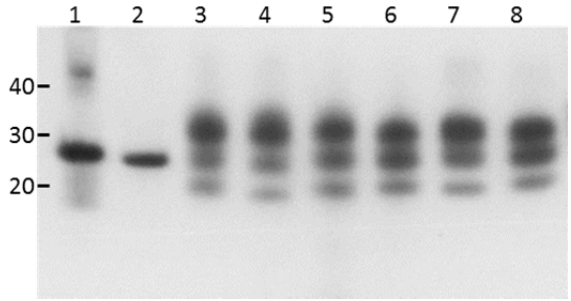
Contact :

P.O.box 65, 8200AB, Lelystad, Netherlands, Phone: +31 320238800, Fax: +31320238668, E-mail: reagents.cvi@wur.nl , Web:www.wageningenur.nl/prionantibody

Examples:

Western blot:

PVDF membrane incubated with 0.5µg/ml primary antibody; secundary antibody rabbit anti-mouse Ig alkaline phosphatase; CDP-Star substrate.

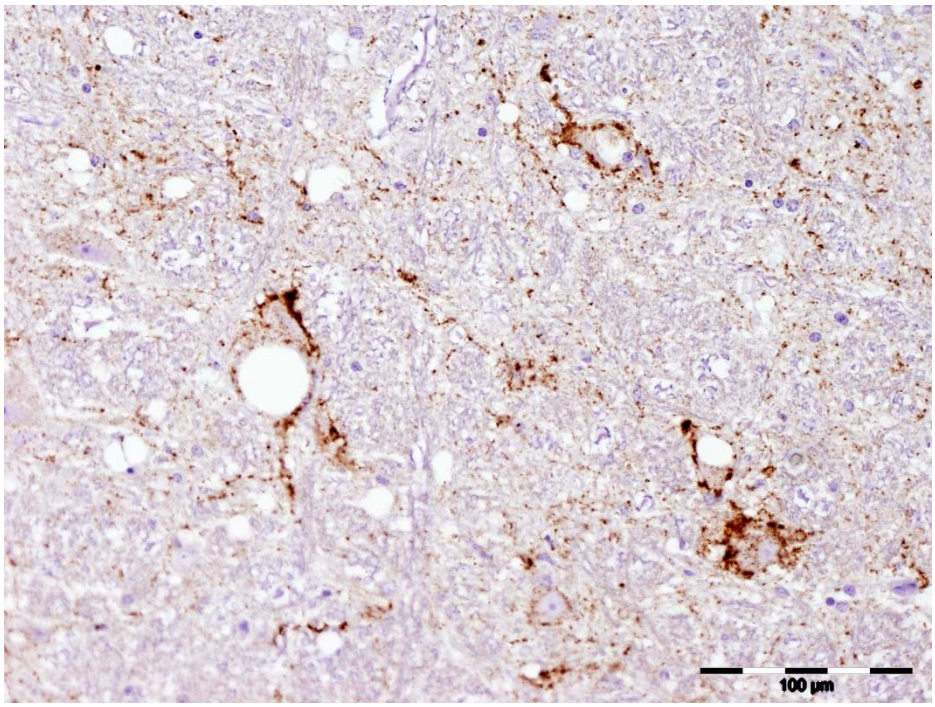


lane	sample	digestion	Amount*	Signal**
1	recombinant E.Coli bovine wt PrP25-242 (6-octarepeats)	No	5ng	++
2	recombinant E.Coli ovine wt PrP25-234 (ARQ)	No	5ng	++
3	classical scrapie ovine brain stem	+PK	0.02mgTE	++
4	C-type BSE in bovine brain stem	+PK	0.1mgTE	++
5	H-type BSE in bovine brain stem	+PK	0.25mgTE	++
6	CWD in North-American elk brain	+PK	0.5mgTE	++
7	301V in VM murine brain	+PK	0.02mgTE	++
8	ME7 in RIII murine brain	+PK	0.02mgTE	++

*TE= tissue equivalents **See also our sheet with our different PrP-specific antibodies

Immunohistochemistry:

Natural classical scrapie infected ovine brain stem with 0.2µg/ml primary antibody. Bar length is 100 µm. Formalin fixed tissues are routinely dehydrated and processed into paraffin. Tissue sections (4 µm) are mounted on silane coated slides and dried. The sections are deparaffinized in xylene and decreasing gradients of ethanol while the endogenous peroxidase activity is abolished with hydrogen peroxide in methanol. Pretreatment of tissue sections consists of 30 minutes immersion in formic acid followed by 5 minutes autoclaving in citrate solution pH6. After incubation with primary antibody the development takes place with EnVision-PO and DAB, followed by HE staining.



Research Use Only: This product is for Research Use Only and must not be used for diagnostic , therapeutic or manufacturing purposes.

Health, Safety and Waste:

All users of this product must ensure that:

(i) This product's specification is safe for their intended use
(ii) The product is handled in a safe manner using good laboratory practice and in accordance with any relevant local or national regulations pertaining to the use of such products; and
(iii) Any waste originating from the product or its use is disposed of in accordance with any relevant local or national regulations.

References:

First report:

Langeveld JPM, Jacobs JG, Erkens JHF, Bossers A, van Zijderveld FG, van Keulen LJM. 2006. Rapid and discriminatory diagnosis of scrapie and BSE in retro-pharyngeal lymph nodes of sheep. BMC Veterinary Research 2006, 2:19.

Other literature:

- Jacobs, JG, Langeveld JPM, Biacabe A-G, Acutis P-L, Polak M P, Gavier-Widen D, Buschmann A, Caramelli M, Casalone C, Mazza M, Groschup M, Erkens JHF, Davidse A, van Zijderveld FG, Baron T. Molecular discrimination of atypical bovine spongiform encephalopathy strains from a geographical region spanning a wide area in Europe. J Clin Microbiol. 2007, 45:1821-1829
- Polak Miroslaw P., Zmudzinski Jan F, Jacobs Jorg G,.Langeveld Jan P.M. Atypical status of bovine spongiform encephalopathy in Poland: a molecular typing study. Archiv Virol. 2007, 153:69-79.
- Biacabe A-G, Jacobs JG, Bencsik A, Langeveld JPM, Baron TGM. H-type bovine spongiform encephalopathy – complex molecular features and similarities with some human prion diseases. Prion 2007, 1:pp61-68.
- Tang Y, Gielbert A, Jacobs JG, Baron T, Andreoletti O, Yokoyama T, Langeveld JP, Sauer MJ. All major prion types recognised by a multiplex immunofluorometric assay for disease screening and confirmation in sheep. J Immunol Methods 2012, 380:30–39.
- Yull HM, Ritchie DL, Langeveld JPM, van Zijderveld FG, Bruce ME, Ironside JW, Head MW. Detection of type 1 prion protein in variant Creutzfeldt-Jakob disease. Am J Pathol. 2006, 168:151-157.

Animal for immunization:

$PrP^{0/0}$ mice, knock-out for PrP
Büeler H, Fischer M, Lang Y, Bluethmann H, Lipp HP, DeArmond SJ, Prusiner SB, Aguet M, Weissmann C. Normal development and behaviour of mice lacking the neuronal cell-surface PrP protein. Nature. 1992 Apr 16;356(6370):577-82.

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