

# PRODUCT INFORMATION



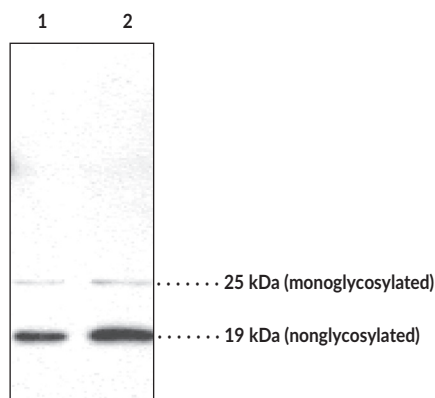
## Doppel Polyclonal Antibody

Item No. 10005517

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide affinity-purified polyclonal antibody.
<b>Synonyms:</b>	DPL, Prion-like Protein Doppel, Prion Protein 2, PRND, PrPLP
<b>Immunogen:</b>	Synthetic peptide from an internal region of human Doppel
<b>Species Reactivity:</b>	(+) Human, mouse, and rat; other species not tested
<b>Uniprot No.:</b>	Q9UKY0
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥3 years
<b>Storage Buffer:</b>	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100 and 1:200, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: Mouse spleen 100 k x g supernatant (27 µg)  
Lane 2: Mouse spleen 100 k x g supernatant (54 µg)

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Doppel is a homolog of the cellular prion protein. Like prion protein, doppel has two N-linked oligosaccharides, and is presented on the cell surface *via* a glycosylphosphatidylinositol anchor.<sup>1</sup> Unlike prion protein, it lacks the conformationally plastic and octapeptide repeat domains.<sup>2</sup> The primary physiological role of doppel protein remains to be determined, but there is some evidence suggesting that cell surface prion protein can antagonize the toxic effect of doppel expressed in the central nervous system.<sup>1</sup> In addition, the protein may play a major role in human male fertility, given its expression on both sertoli cells and spermatozoa.<sup>3</sup> Doppel is differentially glycosylated, causing it to migrate at multiple sizes on SDS-PAGE.<sup>1</sup> Cayman's Doppel Polyclonal Antibody can be used for immunohistochemistry and Western blot applications. The antibody recognizes Doppel at 19 kDa (nonglycosylated) and 25 kDa (monoglycosylated) from human, mouse, and rat samples.

## References

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1. Silverman, G.L., Qin, K., Moore, R.C., *et al.* Doppel is an N-glycosylated, glycosylphosphatidylinositol-anchored protein. Expression in testis and ectopic production in the brains of Prnp<sup>0/0</sup> mice predisposed to purkinje cell loss. *J. Biol. Chem.* **275**(35), 26834-26841 (2000).
2. Mastrangelo, P. and Westaway, D. The prion gene complex encoding PrP<sup>c</sup> and Doppel: Insights from mutational analysis. *Gene* **275**, 1-18 (2001).
3. Peoc'h, K., Serres, C., Frobert, Y., *et al.* The human 'prion-like' protein doppel is expressed in both sertoli cells and spermatozoa. *J. Biol. Chem.* **277**(45), 43071-43078 (2002).

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