

## Product Information

### Anti-ApoD (N-terminal)

produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200459**

#### Product Description

Anti-ApoD (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence in the N-terminal region of human apolipoprotein-D (GeneID: 347), conjugated to KLH. The corresponding sequence is highly conserved in rat and mouse ApoD (84% sequence identity). The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-ApoD (N-terminal) specifically recognizes human ApoD. The antibody may be used in several immunochemical techniques including immunoblotting (~29 kDa) and immunofluorescence. Detection of the ApoD band by immunoblotting is specifically inhibited by the ApoD immunizing peptide.

Apolipoprotein D (ApoD), a 29-kDa glycoprotein bound to high density lipoproteins (HDL) in human plasma, is a member of the lipocalin superfamily of proteins that function as transporters of small hydrophobic ligands.<sup>1</sup> ApoD is widely expressed in a variety of tissues and at high levels in the normal central nervous system. In the CNS, ApoD is mainly expressed by astrocytes and oligodendrocytes from late embryogenesis to aged nervous system.<sup>2,3</sup> ApoD expression can be further increased by a wide range of traumatic, pathological and degenerative conditions. ApoD levels are elevated in the cerebrospinal fluid of patients with Alzheimer's disease, stroke, meningoencephalitis, motor neuron disease, dementia, Niemann-Pick disease, and schizophrenia.<sup>1,3</sup> Increase in ApoD mRNA and protein expression is detected at sites of regenerating peripheral nerves following injury, and in brain after kainate-induced excitotoxicity or traumatic injury.<sup>4</sup> ApoD is a promising prognostic and predictive factor in breast cancer.<sup>5</sup> Its expression can be enhanced by growth arrest and senescence or by other factors such as steroids, interleukin-1, 1,25-dihydroxyvitamin D<sub>3</sub>, retinoic acid, or 25-hydroxycholesterol.<sup>6</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~1.0 mg/mL

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

#### Product Profile

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using extracts of MCF7 cells.

Immunofluorescence: a working concentration of 0.1-0.2 µg/mL is recommended using HEK-293T cells over-expressing human ApoD.

**Note**: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilution by titration.

#### References

1. Rassart, E., et al., *Biochim. Biophys. Acta*, **1482**, 185-198 (2000).
2. Navarro, A., et al., *Exp. Neurol.*, **184**, 697-704 (2003).
3. del Valle, E., et al., *J. Histochem. Cytochem.*, **51**, 1285-1290 (2003).
4. Ganfornina, M.D., et al., *Glia*, **58**, 1320-1334 (2010).
5. Søliland, H., et al., *Anticancer Res.*, **28**, 1151-1160 (2008).
6. Do Carmo, S., et al., *J. Biol. Chem.*, **277**, 5514-5523 (2002).

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