

AR09359PU-N**Bovine Vimentin - Purified****Alternate names:**

VIM

Quantity:

0.25 mg

Concentration:

1,0 mg/ml

Background:

Vimentin is the major subunit protein of the intermediate filaments of mesenchymal cells. It is believed to be involved with the intracellular transport of proteins between the nucleus and plasma membrane. Vimentin has been implicated to be involved in the rate of steroid synthesis via its role as a storage network for steroidogenic cholesterol containing lipid droplets. Vimentin phosphorylation by a protein kinase causes the breakdown of intermediate filaments and activation of an ATP and myosin light chain-dependent contractile event. This results in cytoskeletal changes that facilitate the interaction of the lipid droplets within mitochondria, and subsequent transport of cholesterol to the organelles leading to an increase in steroid synthesis. Immunohistochemical staining for Vimentin is characteristic of sarcomas (of neural, muscle and fibroblast origin) compared with carcinomas which are generally negative. Melanomas, lymphomas and vascular tumors may all stain for Vimentin.

Uniprot ID:[P48616](#)**NCBI:**[NP_776394](#)**GeneID:**[280955](#)**Species:**

Bovine

Source:

Bovine lens

Format:**State:** Lyophilised purified protein**Purity:** >98% determined by SDS gelelectrophoresis**Buffer System:** 10 mM sodium phosphate pH 7.5, 6M urea, 2 mM DTT, 1 mM EDTA, 10 mM methylammonium chloride**Reconstitution:** Reconstitute with 200 µl distilled water (final volume 250 µl)

Reconstitute with 80 µl distilled water (final volume 100 µl)

Applications:

Protein standard in 1D and 2D SDS gelelectrophoresis.

Immunoassays.

Immunization.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Description:

Bovine vimentin

Molecular weight: 57,000**Add. Information:****Isoelectric Point:** pI 5.3**Storage:**

Prior to reconstitution store at 2-8°C.

Following reconstitution store the antibody at -20°C.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Bloemendal H, Willemsen M, Groenewoud G, Oomen P. Isolation of the intermediate filament protein vimentin by chromatofocusing. *FEBS Lett.* 1985 Jan 28;180(2):181-4. PubMed PMID: 3967763.
2. Franke WW, Denk H, Kalt R, Schmid E. Biochemical and immunological identification of cytokeratin proteins present in hepatocytes of mammalian liver tissue. *Exp Cell Res.* 1981 Feb;131(2):299-318. PubMed PMID: 6162655.

Protocols:

Reconstitution to filaments: after vimentin is dissolved in 6 M urea buffer (see above), protofilaments and filament complexes are obtained by dialyzing the resulting polypeptide solution stepwise to a concentration of 4 M urea and then to low salt condition (50 mM NaCl, 2 mM dithiothreitol, 10 mM sodium phosphate, pH 7.4). For immunization purposes, the solution can be further dialyzed against PBS (phosphate buffered saline, e.g. Dulbecco's PBS).

Pictures:

1) phosphorylase B (a) BSA (b) ovalbumin (c) carbonic anhydrase (d) 2) vimentin

