# TECHNICAL DATA SHEET

# CyFlow™ Vimentin Purified
# Anti-Hu; Clone VI-RE/1

REF **BY467086**

**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

## Specifications

| | |
|---|---|
| **Antigen** | Vimentin |
| **Alternative Names** | — |
| **Clone** | VI-RE/1 |
| **Clonality** | monoclonal |
| **Format** | Purified |
| **Host / Isotype** | Mouse / IgG1 |
| **Species Reactivity** | Human |
| **Negative Species Reactivity** | Mouse \| Pig |
| **Quantity [Concentration]** | 0.1 mg [ 1 mg/ml ] |
| **Immunogen** | Bacterially expressed full-length human vimentin |

## Specificity

The mouse monoclonal antibody VI-RE/1 recognizes human vimentin, a 57 kDa intermediate filament protein expressed on a wide variety of mesenchymal and mesodermal cell types.

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## Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Western blot
- Immunocytochemistry
- Enzyme-linked immunosorbent assay

## Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

## Storage and Stability

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|---|---|
| **Storage** | Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze. |
| **Stability** | Do not use after expiration date stamped on vial label. |

## Background Information

Vimentin is the most ubiquituos intermediate filament protein and the first to be expressed during cell differentiation. All primitive cell types express vimentin but in most non-mesenchymal cells it is replaced by other intermediate filament proteins during differentiation. Vimentin is expressed in a wide variety of mesenchymal cell types - fibroblasts, endothelial cells etc., and in a number of other cell types derived from mesoderm, e.g., mesothelium and ovarian granulosa cells. In non-vascular smooth muscle cellsand striated muscle, vimentin is often replaced by desmin, however, during regeneration, vimentin is reexpressed. Cells of the lymfo-haemopoietic system (lymphocytes, macrophages etc.) also express vimentin, sometimes in scarce amounts. Vimentin is also found in mesoderm derived epithelia, e.g. kidney (Bowman capsule), endometrium and ovary (surface epithelium), in myoepithelial cells (breast, salivary and sweat glands), an in thyroid gland epithelium. In these cell types, as in mesothelial cells, vimentin is coexpressed with cytokeratin. Furthermore, vimentin is detected in many cells from the neural crest. Particularly melanocytes express abundant vimentin. In glial cells vimentin is coexpressed with glial filament acidic protein (GFAP).Vimentin is present in many different neoplasms but is particulary expressed in those originated from mesenchymal cells. Sarcomas e.g., fibrosarcoma, malignt fibrous histiocytoma, angiosarcoma, and leio- and rhabdomyosarcoma, as well as lymphomas, malignant melanoma and schwannoma, are virtually always vimentin positive. Mesoderm derived carcinomas like renal cell carcinoma, adrenal cortical carcinoma and adenocarcinomas from endometrium and ovary

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usually express vimentin. Also thyroid carcinomas are vimentin positive. Any low differentiated carcinoma may express some vimentin. Vimentin is frequently included in the so-called primary panel (together with CD45, cytokeratin, and S-100 protein). Intense staining reaction for vimentin without coexpression of other intermediate filament proteins is strongly suggestive of a mesenchymal tumor or malignant melanoma.

## References


- Chen YK, Chang WS, Wu IC, Li LH, Yang SF, Chen JY, Hsu MC, Chen SH, Wu DC, Lee JM, Huang CH, Goan YG, Chou SH, Huang CT, Wu MT: Molecular characterization of invasive subpopulations from an esophageal squamous cell carcinoma cell line. Anticancer Res. 2010 Mar; 30(3):727-36. < PMID: 20392990 >


The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.


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