



# Mouse Anti-Human Vimentin monoclonal antibody, clone 23F5 (CABT-L4587)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

|                           |   |
|---------------------------|---|
| <b>Product Overview</b>   | This can be used for Western blot and ELISA applications. The antibody recognizes vimentin at ~54 kDa from human samples. |
| <b>Specificity</b>        | The antibody recognizes vimentin at ~54 kDa from human samples.   |
| <b>Immunogen</b>          | Recombinant human vimentin protein  |
| <b>Isotype</b>            | IgG2a   |
| <b>Source/Host</b>        | Mouse   |
| <b>Species Reactivity</b> | Human   |
| <b>Clone</b>              | 23F5  |
| <b>Purification</b>       | Protein G purified  |
| <b>Conjugate</b>          | Unconjugated  |
| <b>Applications</b>       | ELISA, WB   |
| <b>Format</b>             | Liquid  |
| <b>Concentration</b>      | Lot specific  |
| <b>Size</b>               | 100 µg  |
| <b>Buffer</b>             | PBS, pH 7.2, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide  |
| <b>Preservative</b>       | 0.02% sodium azide  |

|         |          |
|---------|----------|
| Storage | At -20°C |
|---------|----------|

|      |         |
|------|---------|
| Ship | Wet ice |
|------|---------|

## BACKGROUND

### Introduction

Vimentin is a cytoskeleton intermediate filament protein present in cells of mesenchymal origin, including leukocytes, endothelial cells, and smooth muscle cells. Each vimentin monomer contains a central  $\alpha$ -helix that facilitates formation of the coil-coil dimer required for vimentin filament assembly. Vimentin is attached to nuclei, endoplasmic reticulum, and mitochondria, and has a role in positioning organelles in the cytosol. It regulates glial morphology, facilitates motility and directional migration of fibroblasts, and is critical to mechanotransduction of shear stress and maintenance of vascular endothelial integrity. Vimentin controls transport of LDL-derived cholesterol from lysosomes to esterification sites. It is an aggresome component, forming a cage-like structure around aggregated, undegraded proteins at the microtubule organizing center. Vimentin is subject to citrullination under high calcium concentrations, which can occur during macrophage apoptosis, and citrullinated vimentin has been shown to have a role in the production of anti-citrullinated protein antibodies (ACPAs). ACPAs against citrullinated proteins, such as vimentin, are considered to be highly specific markers for rheumatoid arthritis and other autoimmune diseases.

|          |  |
|----------|--|
| Keywords | VIM;vimentin;HEL113;CTRCT30;epididymis luminal protein 113 |
|----------|--|

## GENE INFORMATION

|            |                        |
|------------|------------------------|
| UniProt ID | <a href="#">P08670</a> |
|------------|------------------------|