

## Polyclonal Anti- Caveolin-1 Picoband™ Antibody

Catalog Number: PB9165

### Description

<b>Gene Name</b>	caveolin 1, caveolae protein, 22kDa
<b>Recommended Protein Name</b>	Caveolin-1
<b>Lot No.</b>	0911512Da356545
<b>Size</b>	100µg/vial
<b>Form</b>	lyophilized
<b>Ig type</b>	Rabbit IgG
<b>Specificity</b>	No cross reactivity with other proteins.
<b>Purification</b>	Immunogen affinity purified.
<b>Species</b>	<b>Reacts with:</b> human, mouse
<b>Immunogen</b>	E.coli-derived human Caveolin-1 recombinant protein (Position: G4-I178). Human Caveolin-1 shares 95% and 94% amino acid (aa) sequence identity with mouse and rat Caveolin-1, respectively.
<b>Contents</b>	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .

### Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1µg/ml	Hu	By Heat
Immunohistochemistry (Frozen Section)	0.5-1µg/ml	Hu, Ms	-
Immunocytochemistry	0.5-1µg/ml	Hu	-

**WB: The detection limit for Caveolin-1 is approximately 0.25ng/lane under reducing conditions.**

**Tested Species:** In-house tested species with positive results.

**By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.**

*Other applications have not been tested.*

*Optimal dilutions should be determined by end users.*

## Preparation and storage

**Reconstitution:** 0.2ml of distilled water will yield a concentration of 500µg/ml.

**Storage:** At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

## Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P), IHC(F) and ICC.

## Background

CAV1( Caveolin-1) is a protein that in humans is encoded by the CAV1 gene. The CAV1 gene is mapped to 7q31.2. The scaffolding protein encoded by this gene is the main component of the caveolae plasma membranes found in most cell types. The protein links integrin subunits to the tyrosine kinase FYN, an initiating step in coupling integrins to the Ras-ERK pathway and promoting cell cycle progression. The gene is a tumor suppressor gene candidate and a negative regulator of the Ras-p42/44 MAP kinase cascade. CAV1 and CAV2 are located next to each other on chromosome 7 and express colocalizing proteins that form a stable hetero-oligomeric complex. By using alternative initiation codons in the same reading frame, two isoforms(alpha and beta) are encoded by a single transcript from this gene.

## Reference

1. Tahir, S. A., Yang, G., Ebara, S., Timme, T. L., Satoh, T., Li, L., Goltsov, A., Ittmann, M., Morrisett, J. D., Thompson, T. C. Secreted caveolin-1 stimulates cell survival/clonal growth and contributes to metastasis in androgen-insensitive prostate cancer. *Cancer Res.* 61: 3882-3885, 2001.
2. Wang, X. M., Zhang, Y., Kim, H. P., Zhou, Z., Feghali-Bostwick, C. A., Liu, F., Ifedigbo, E., Xu, X., Oury, T. D., Kaminski, N., Choi, A. M. K. Caveolin-1: a critical regulator of lung fibrosis in idiopathic pulmonary fibrosis. *J. Exp. Med.* 203: 2895-2906, 2006.
3. Yang, G., Truong, L. D., Timme, T. L., Ren, C., Wheeler, T. M., Park, S. H., Nasu, Y., Bangma, C. H., Kattan, M. W., Scardino, P. T., Thompson, T. C. Elevated expression of caveolin is associated with prostate and breast cancer. *Clin. Cancer Res.* 4: 1873-1880, 1998.