

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse and rat Rap1A/B. The antibody is highly specific for Rap1A/B and detects recombinant human Rap2A only upon prolonged film exposure.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Rap1A Met1-Leu184 Accession # P62834
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	Immersion fixed paraffin-embedded sections of Human Squamous

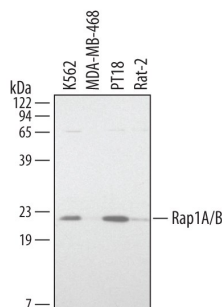
## DATA

### Western Blot



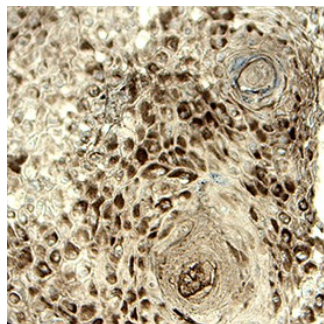
**Detection of Human Rap1A/B by Western Blot.** Western blot shows recombinant human Rap1A, Rap1B, Rap2A, and Rap2B (1 ng/lane). PVDF membrane was probed with 1 µg/mL Human/Mouse/Rat Rap1A/B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3767) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Western Blot



**Detection of Human/Mouse/Rat Rap1A/B by Western Blot.** Western blot shows lysates of K562 human chronic myelogenous leukemia cell line, MDA-MB-468 human breast cancer cell line, PT18 mouse mast/basophil cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 1 µg/mL Human/Mouse/Rat Rap1A/B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3767) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band for Rap1A/B was detected at approximately 22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunohistochemistry



**Detection of Rap1A/B in Human Squamous.** Rap1A/B was detected in immersion fixed paraffin-embedded sections of Human Squamous using Goat Anti-Human/Mouse/Rat Rap1A/B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3767) at 15 µg/mL for 1 hour at room temperature followed by incubation with HRP-DAB. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of cancer cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The Ras-related proteins Rap1A and Rap1B share 95% identity and together with Rap2A and Rap2B constitute a grouping within the Ras superfamily of small GTPases. Like other GTPases, Rap proteins transduce signals by cycling between an active GTP-bound and an inactive GDP-bound state. Rap1 counteracts the mitogenic function of Ras, possibly through competitive interactions with Ras GAPs and Raf, and is implicated in the regulation of integrins.