

**DESCRIPTION**

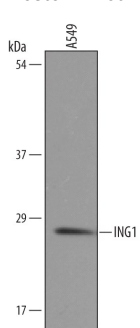
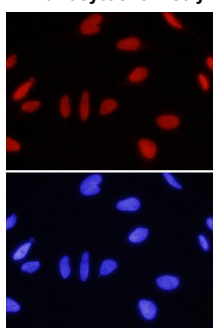
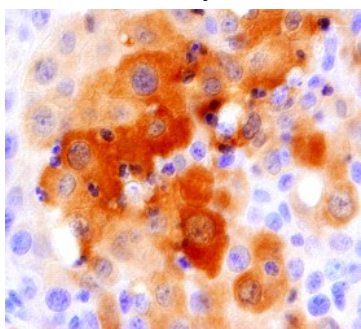
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human ING1 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) ING2 and less than 1% cross-reactivity with rhING3, rhING4, and rhING5 is observed. |
| <b>Source</b>             | Polyclonal Goat IgG  |
| <b>Purification</b>       | Antigen Affinity-purified  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human ING1<br>Met213-Ser327<br>Accession # Q9UK53  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.                                    |

**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>Immunocytochemistry</b>  | 5-15 µg/mL                       | See Below     |
| <b>Immunohistochemistry</b> | 5-15 µg/mL                       | See Below     |

**DATA**

|   |  |
|---|--|
| <p><b>Western Blot</b></p>  <p><b>Detection of Human ING1 by Western Blot.</b> Western blot shows lysates of A549 human lung carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human ING1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5758) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for ING1 at approximately 28 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p> | <p><b>Immunocytochemistry</b></p>  <p><b>ING1 in HeLa Human Cell Line.</b> ING1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using 10 µg/mL Goat Anti-Human ING1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5758) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> |
| <p><b>Immunohistochemistry</b></p>  <p><b>ING1 in Human Lung Cancer Tissue.</b> ING1 was detected in immersion fixed paraffin-embedded sections of human lung cancer tissue using 5 µg/mL Goat Anti-Human ING1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5758) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>               |  |

**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.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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

ING1 (Inhibitor of Growth 1; also p33<sup>ING1b</sup> and ING1A) is a 32 kDa member of the ING family of tumor suppressors. It is very widely expressed, and participates in multiple cell functions. When bound to p53, ING1 inhibits cell growth; when complexed to GADD45, ING1 enhances DNA nucleotide excision repair; and when associated with HAT, ING1 promotes hyperacetylation of histones H3 and H4. Human ING1 is 279 amino acids (aa) in length. It contains a PIP-PBD region (aa 5-45), an NLS (aa 142-158), and a plant homeodomain (PHD) (aa 210-259). Phosphorylation occurs on Ser126 and Ser199. There are at least three isoform variants. p47<sup>ING1a</sup> contains a 190 aa substitution for aa 1-46, p27<sup>ING1d</sup> shows a deletion of aa 2-45, and p24<sup>ING1c</sup> has an alternate start site at Met70. Over aa 213-327, human ING1 shares 82% aa identity with mouse ING1.