

**DESCRIPTION**

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse ID1 in Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse ID1 Met1-Glu135 Accession # P20067
<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>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	20 µg/mL	HepG2 human hepatocellular carcinoma cell line

**DATA**

**Western Blot**

**Detection of Human ID1 by Western Blot.** Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line and MCF-7 human breast cancer cell line. Gels were loaded with 20 µg of cytoplasmic (Cyto) and 10 µg of nuclear extracts (Nuc). PVDF membrane was probed with 1 µg/mL Goat Anti-Human/Mouse ID1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4377) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band for ID1 was detected at approximately 25 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**

**ID1 in BG01V Human Embryonic Stem Cells.** ID1 was detected in immersion fixed BG01V human embryonic stem cells, undifferentiated (lower panel) and differentiated into neural progenitor cells (upper panel), using Goat Anti-Human/Mouse ID1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4377) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**Simple Western**

**Detection of Human ID1 by Simple Western™.** Simple Western lane view shows lysates of HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for ID1 at approximately 30 kDa (as indicated) using 20 µg/mL of Goat Anti-Human/Mouse ID1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4377). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

**Immunocytochemistry**

**Detection of ID1 in PC-3 cells (Positive) & Daudi cells (Negative).** ID1 was detected in immersion fixed PC-3 human prostate cancer cells (Positive) & absent in Daudi human Burkitt's lymphoma cells (Negative) using Goat Anti-Human/Mouse ID1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4377) at 5 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to Nuclear and cytoplasmic. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**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>	<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**

ID-1a is a negative regulator of helix-loop-helix (HLH) DNA binding proteins. ID-1a contains a HLH motif but no DNA binding motif, therefore, upon binding other HLH proteins, ID-1a acts a dominant negative regulator. ID-1a can be found in both cytoplasmic and nuclear cell fractions. Increased ID-1a expression is associated with cellular proliferation and cancer.