

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	AIF antibodies are ideal for immunocytochemistry colocalization studies in mitochondria. The unconjugated antibody detects human, mouse, and rat AIF in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human AIF Glu121-Asp613 Accession # O95831
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

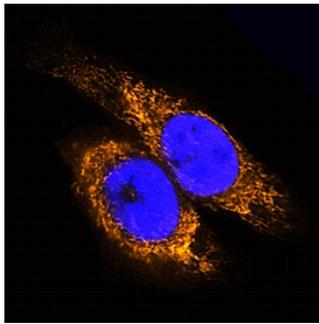
## APPLICATIONS

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

## DATA

### Immunocytochemistry



**AIF in HeLa Human Cell Line.** AIF was detected in formaldehyde fixed HeLa human cervical epithelial carcinoma cell line using Sheep Anti-Human/Mouse/Rat AIF Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF5824) at 5 µg/mL overnight at 4 °C. Cells were stained using the NorthernLights™ 557-conjugated Streptavidin (orange; Catalog # NL999) and counterstained with DAPI (blue). Specific staining was localized to mitochondria. 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.
<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

Apoptosis-inducing factor (AIF, also known as programmed cell death protein 8) is a 58 kDa member of the FAD-dependent oxidoreductase family of molecules. It is ubiquitously expressed and found in the mitochondrial intermembrane space. AIF likely acts as a mitochondrial antioxidant providing protection via NADH oxidase activity. Upon release from the mitochondria, AIF passes into the nucleus where it initiates apoptosis. Human AIF precursor is 67 kDa in size and 613 amino acids (aa) in length and contains a cleavable N-terminal 102 aa mitochondrial localization sequence, followed by a spacer region (aa 103-129) and an oxidoreductase domain (aa 130-613) that possesses an NLS (aa 446-451). Over aa 121-613, human AIF shares 95% aa identity with mouse AIF.