

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Claspin in direct ELISAs.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Claspin Phe1138-Ser1339 Accession # Q9HAW4
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

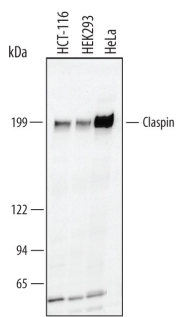
## APPLICATIONS

**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

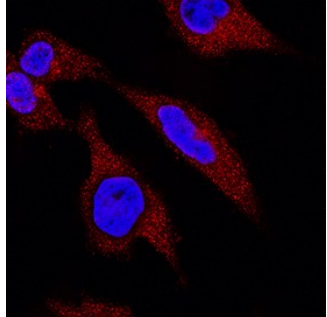
## DATA

**Western Blot**



**Detection of Human Claspin by Western Blot.** Western blot shows lysates of HCT-116 human colorectal carcinoma cell line, HEK293 human embryonic kidney cell line, and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Claspin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3310) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Claspin at approximately 199 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**



**Claspin in HeLa Human Cell Line.** Claspin was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human Claspin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3310) at 1.7 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 cytoplasm. 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

Claspin is a nuclear protein whose expression peaks during S and G2 phases of the cell cycle. Claspin is phosphorylated by ATR in response to DNA damage or replication stress. It functions in cell cycle checkpoint control by regulating the activation of Chk1 and BRCA1. Claspin contains three CKB motifs and two coiled coil regions. Over the range used for immunization, human and mouse Claspin share 72% amino acid sequence identity. DNA replication and DNA damage induce the phosphorylation of Claspin by Chk1-dependent mechanisms.