

**DESCRIPTION**

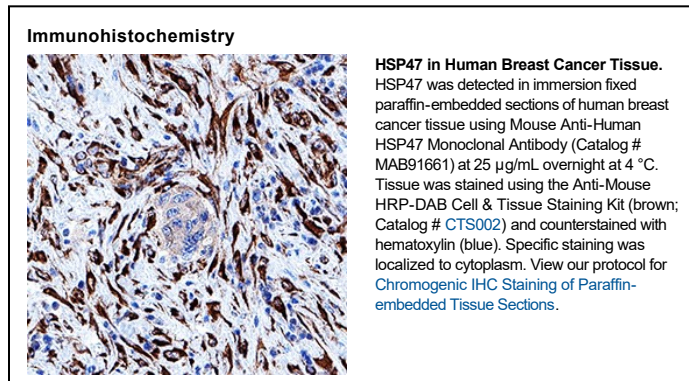
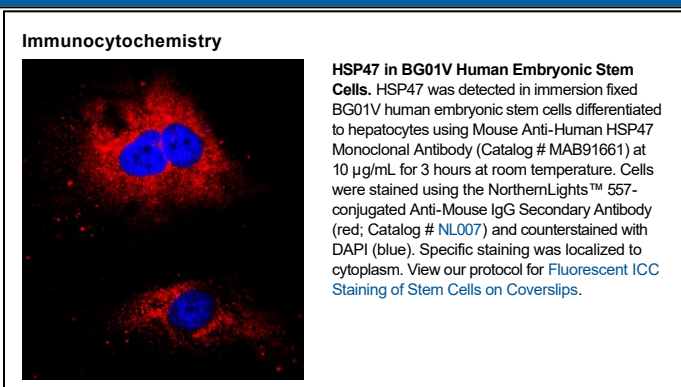
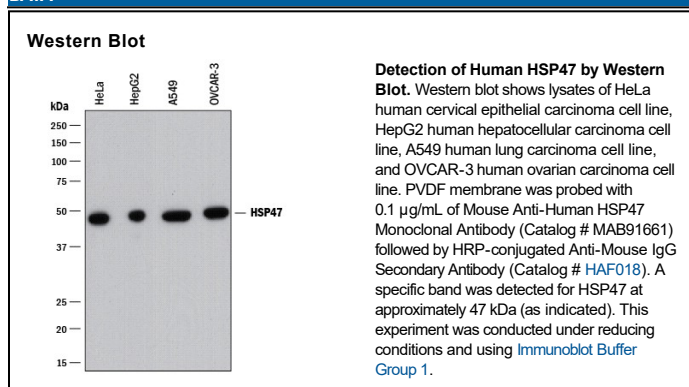
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human HSP47 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with mouse HSP47 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 950811
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human HSP47 Ala19-Asp412 Accession # P50454
<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>	0.1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-25 µg/mL	See Below
<b>Immunohistochemistry</b>	5-25 µg/mL	See Below

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 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**

Heat Shock Protein 47 (HSP47), also known as Serpin-H1/CBP1/CBP2, is localized to endoplasmic reticulum (ER), where it is a collagen-specific molecular chaperone. In the ER, HSP47 interacts with and stabilizes correctly-folded procollagen. Nucleotide polymorphisms may be associated with preterm birth and Osteogenesis Imperfecta type X. Serpin-H1 is up-regulated in several cancers including squamous cell carcinoma, breast and prostate carcinomas. Expression in tumors drives malignant growth and invasion by enhancing deposition of extracellular matrix proteins.

**References:**

1. Christiansen HE, et al, (2010) Am. J. Hum. Genet. 86:3892.
2. Tasab M, et al, (2000) EMBO J. 19:22043.
3. Kwon YJ, et al, (2009) Oncol Res. 18:1414.
4. Zhu J, et al, (2015) Cancer Res. 75:15805.
5. Nese N, et al, (2010) Anal Quant Cytol Histol. 32:90