

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse HO-1/HMOX1/HSP32 in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human HO-2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human HO-1/HMOX1/HSP32 Met1-Thr261 Accession # P09601
<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.

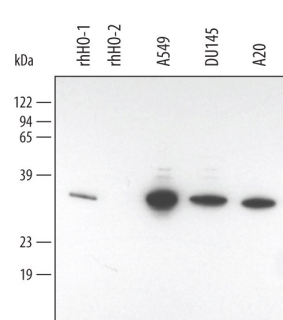
## APPLICATIONS

**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>	0.5 µg/mL	See Below
<b>Simple Western</b>	25 µg/mL	See Below
<b>Knockout Validated</b>	HO-1/HMOX1/HSP32 is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in HO-1/HMOX1/HSP32 knockout HeLa cell line.	

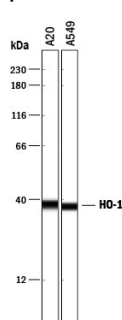
## DATA

### Western Blot



**Detection of Human/Mouse HO-1/HMOX1/HSP32 by Western Blot.** Western blot shows lysates of A549 human lung carcinoma cell line, DU145 human prostate carcinoma cell line, and A20 mouse B cell lymphoma cell line. PVDF membrane was probed with 0.5 µg/mL Goat Anti-Human/Mouse HO-1/HMOX1/HSP32 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3776) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). For additional reference, recombinant human HO-1 and HO-2 (5 ng/lane) were included. A specific band for HO-1/HMOX1/HSP32 was detected at approximately 32 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 2](#).

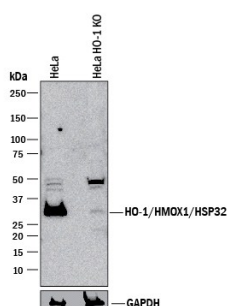
### Simple Western



**Detection of Human and Mouse HO-1/HMOX1/HSP32 by Simple Western™.** Simple Western lane view shows lysates of A20 mouse B cell lymphoma cell line and A549 human lung carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for HO-1/HMOX1/HSP32 at approximately 37 kDa (as indicated) using 25 µg/mL of Goat Anti-Human/Mouse HO-1/HMOX1/HSP32 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3776) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



### Knockout Validated



**Western Blot Shows Human HO-1/HMOX1/HSP32 Specificity by Using Knockout Cell Line.** Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and HO-1/HMOX1/HSP32 knockout HeLa cell line (KO). PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human/Mouse HO-1/HMOX1/HSP32 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3776) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for HO-1/HMOX1/HSP32 at approximately 32 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

## 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>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

Heme Oxygenase 1 (HO-1), also known as HMOX1 and Heat Shock Protein 32 (HSP32), is a 32 kDa microsomal enzyme required for the metabolism of heme to biliverdin. Heme oxygenase occurs as 2 isozymes, an inducible heme oxygenase-1 (HO-1/HMOX1) and a constitutive heme oxygenase-2 (HO-2/HMOX2). HO-1 expression is induced by heme and other non-heme compounds. Human HO-1 shares 82% amino acid sequence identity with mouse HO-1.