

DESCRIPTION

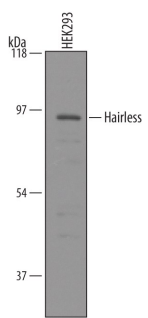
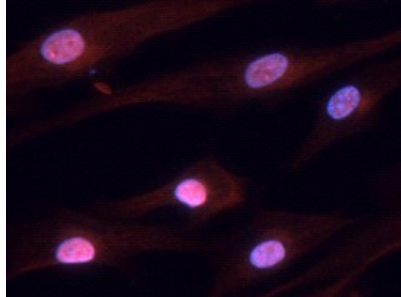
Species Reactivity	Human
Specificity	Detects human Hairless in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Hairless Met1-Thr277 Accession # O43593
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human Hairless by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Hairless Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5708) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Hairless at approximately 96 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Immunocytochemistry</p>  <p>Hairless in NHEK Human Cell Line. Hairless was detected in immersion fixed human NHEK epidermal keratinocytes using 10 µg/mL Goat Anti-Human Hairless Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5708) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Hairless (HR) is a predicted 145-155 kDa protein that acts as a corepressor for multiple nuclear receptors. Although it was initially associated with atrichia (hair loss) and WISE gene suppression, it is now known to impact multiple genes in different cell types. In general, it binds both HDACs and select unligated nuclear receptors via multiple domains, thereby repressing gene transcription. Human HR is 1189 amino acids (aa) in length. It contains a C6-type zinc finger DNA binding region (aa 600-625) and a Jmjc domain (aa 946-1157) that blocks DNA methylation. The 1189 aa isoform is widely expressed, while a shorter isoform showing a deletion of aa 1072-1126 is an HR isotype associated with hair follicle Keratin-14⁺ keratinocytes. An additional isoform shows a 25 aa substitution for aa 1091-1189. Over aa 1-277, human HR shares 82% aa identity with mouse HR.