

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                   |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human Hairless in direct ELISAs and Western blots.                              |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                     |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                               |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human Hairless<br>Met1-Thr277<br>Accession # O43593 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm         |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                            |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                         |

## 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>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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 (hairloss) 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<sup>+</sup> 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.

## PRODUCT SPECIFIC NOTICES

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