

#### DESCRIPTION

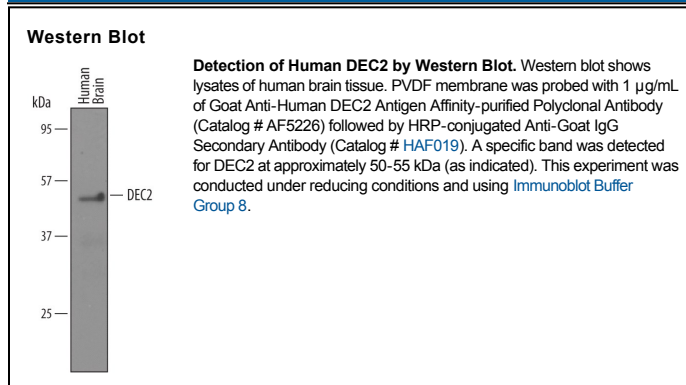
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human DEC2 direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human DEC1 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human DEC2 Ala101-Gly287 Accession # Q9C0J9
<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 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

#### DATA



#### 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

DEC-2 (Differentially expressed in chondrocytes protein 2; also bHLHB3, Sharp-1 and bHLHe41) is a 54-56 kDa Class B member of the bHLH superfamily of proteins. It utilizes both DNA binding and protein-protein interaction to mediate E-box transcriptional repression. Physiologically, DEC-2 is proposed to be a regulator of the sleep cycle, particularly during periods of sleep deprivation. It also interacts with HIF-1 alpha neutralizing its activation of the VEGF gene during hypoxia. Human DEC-2 is 482 amino acids (aa) in length. It contains a DNA binding motif (aa 45-57), an HLH region (aa 58-100), an Orange domain that may impart specificity to protein-protein interactions (aa 131-166) and a Gly/Ala-rich region (aa 297-431). DEC-2 forms homodimers, and heterodimers with MyoD and E-proteins. There is one potential alternate start site at Met280. Over aa 101-287, there is less than 60% aa identity between human and mouse DEC-2.