

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human DEC2 direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human DEC1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human DEC2 Ala101-Gly287 Accession # Q9C0J9
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

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