

DESCRIPTION

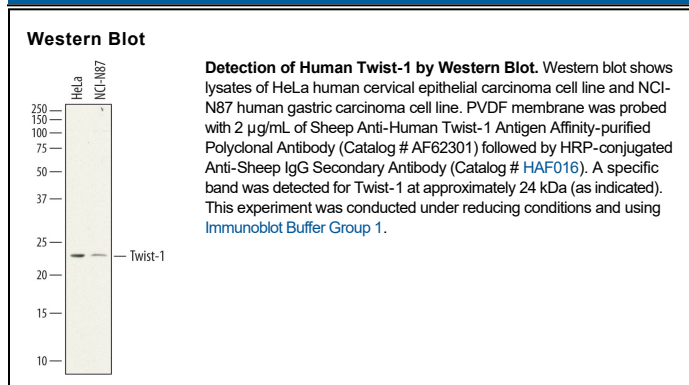
Species Reactivity	Human
Specificity	Detects human Twist-1 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant Twist-2 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Twist-1 Met1-His202 Accession # Q15672
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 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.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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

Twist-1 (Twist-related protein 1; also H-Twist and bHLHa38) is a 24-27 kDa class B member of the bHLH transcription factor family of proteins. It is widely expressed in embryo, and select adult cells such as white adipocytes. In fat, Twist-1 induces fatty acid oxidation via PGC-1α and CPT-1, and promotes MCP-1 and TNF-α secretion by adipocytes. In epithelium, Twist-1 dysregulation represses E-Cadherin and induces N-Cadherin expression, resulting in an epithelial-to-mesenchymal transition that can lead to cancer. Human Twist-1 is 202 amino acids (aa) in length. It contains a bHLH domain (aa 109-164) with an embedded DNA-binding motif. Twist-1 forms homodimers, and heterodimerizes with TCF3, HAND 1 and HAND 2. Two distinct mutations exist that may impact its dimerization pattern. There is one seven aa insertion after Ile135, and a second seven aa insertion after Pro139. A third unrelated variant shows a four Gly insert after Gly92. Full-length human Twist-1 shares 98% aa identity with mouse Twist-1.