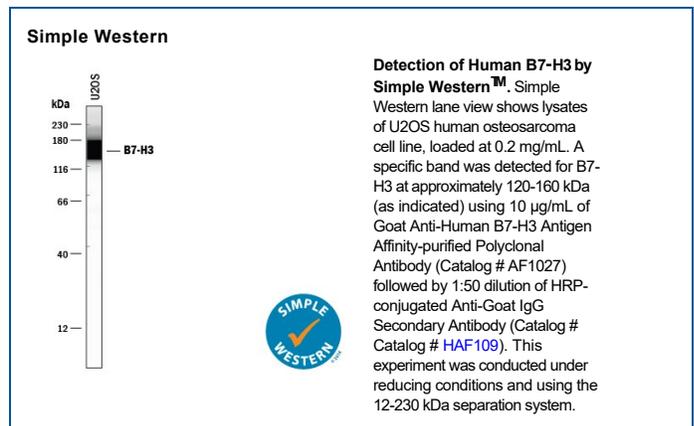
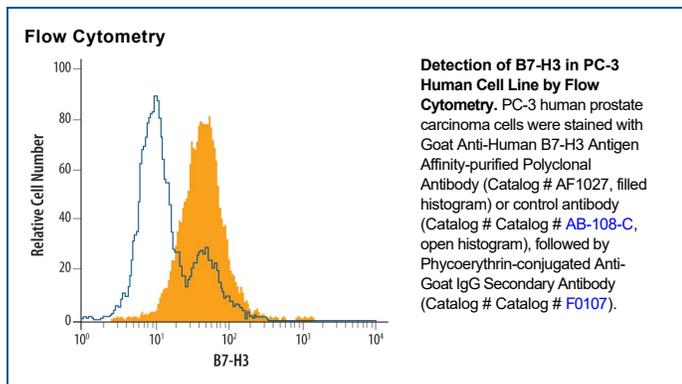
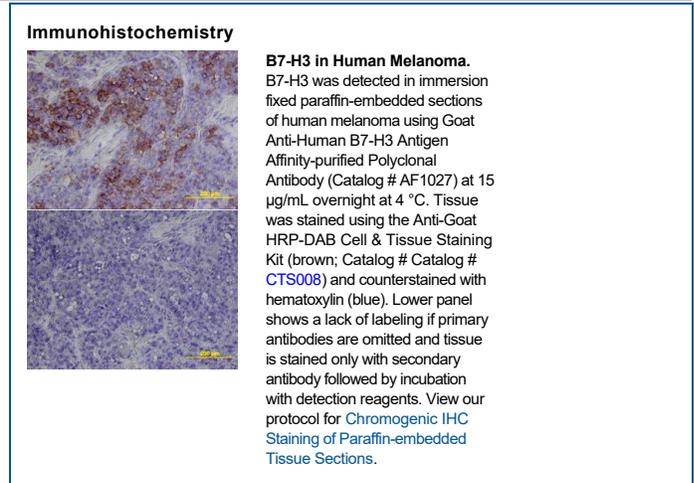
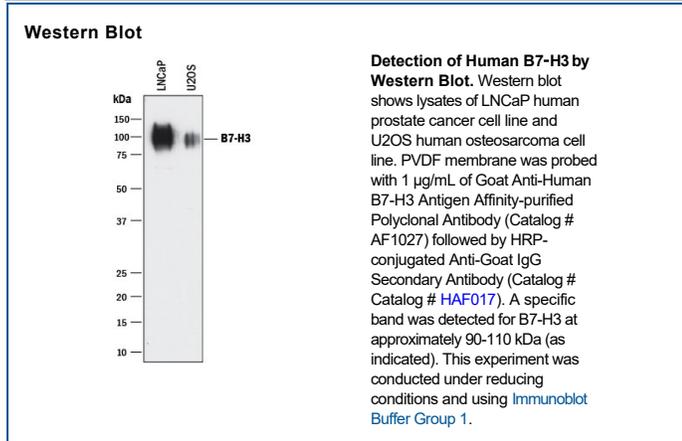
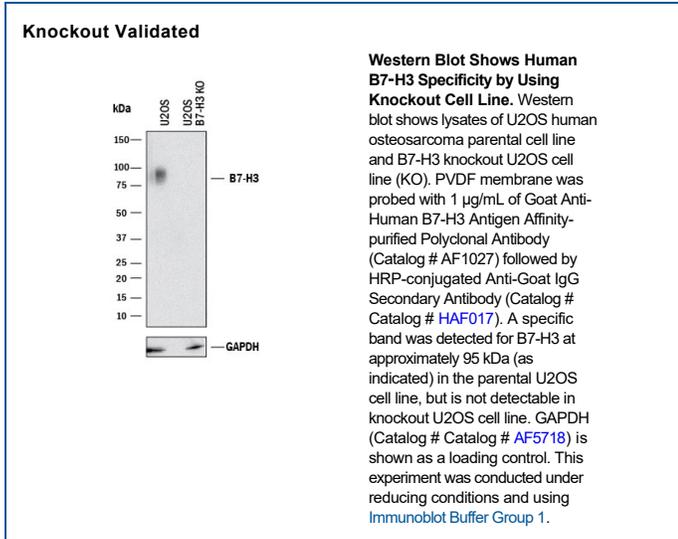


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human B7-H3 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human B7-H3 Leu29-Pro245 Accession # NP_079516
Formulation	Lyophilized 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. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Knockout Validated	B7-H3 is specifically detected in U2OS human osteosarcoma parental cell line but is not detectable in B7-H3 knockout U2OS cell line.	

DATA





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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

Human B7 homolog 3 (B7-H3) is a member of the B7 family of immune proteins that provide signals for regulating immune responses (1-3). Other family members include B7-1, B7-2, B7-H2, PD-L1 (B7-H1), and PD-L2. B7 proteins are immunoglobulin (Ig) superfamily members with extracellular Ig-V-like and Ig-C-like domains and short cytoplasmic domains. Among the family members, they share about 20-40% amino acid (aa) sequence identity. The cloned human B7-H3 cDNA encodes a 316 aa type I membrane precursor protein with a putative 28 aa signal peptide, a 217 aa extracellular region containing one V-like and one C-like Ig domain, a transmembrane region, and a 45 aa cytoplasmic domain. An isoform of human B7-H3 containing a four-Ig-like domain extracellular region has also been identified. Human B7-H3 is not expressed on resting B cells, T cells, monocytes or dendritic cells, but is induced on dendritic cells and monocytes by inflammatory cytokines. B7-H3 expression is also detected on various normal tissues and in some tumor cell lines. Human B7-H3 does not bind any known members of the CD28 family of immunoreceptors. However, B7-H3 has been shown to bind an unidentified counter-receptor on activated T cells to costimulate the proliferation of CD4⁺ or CD8⁺ T cells. B7-H3 has also been found to enhance the induction of primary cytotoxic T lymphocytes and stimulate IFN-γ production (1-3).

References:

1. Chapoval, A.I. *et al.* (2001) *Nat. Immunol.* 2:269.
2. Sharpe, A.H. and G.J. Freeman (2002) *Nat. Rev. Immunol.* 2:116.
3. Coyle, A. and J. Gutierrez-Ramos (2001) *Nat. Immunol.* 2:203.