

## Anti-4Ig-B7H3 [8H9] Standard Size Ab03824-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This is a reformatted human IgG1 Fc Silent Fc Silent™ antibody, based on the original human IgG1 format, created for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Human IgG1, Fc Silent™, Kappa

**Clone Number:** 8H9

**Alternative Name(s) of Target:** 4Ig domain isoform of the human B7-homolog 3; CD276; B7-H3; B7H3; CD276 antigen; B7 homolog 3; 4Ig-B7-H3; costimulatory molecule

**UniProt Accession Number of Target Protein:** Q5ZPR3

**Published Application(s):** in vivo, IP, therapeutic, WB, IHC

**Published Species Reactivity:** Human

**Immunogen:** The antibody was originally generated by immunizing BALB/c mice with human neuroblastoma.

**Specificity:** The antibody recognizes the 4Ig Domain Isoform of the Human B7-Homolog 3, 4Ig-B7H3. The epitope that the antibody recognizes appears to be restricted to tumors versus normal tissues.

**Application Notes:** The antibody was highly reactive with human brain tumors, childhood sarcomas, and neuroblastomas by immunohistochemistry. The antibody was nonreactive with normal human tissues. 4Ig-B7H3 was immunoprecipitated using this antibody (Modak et al., 2001; PMID: 11358824). In vitro characterization of radiolabeled 8H9 showed that (125)I-8H9 had a K(d) of 10.3nM with an estimated 115,000 binding sites on every HTB82 cell. Further, (125)I-8H9 was retained on the cell surface without significant internalization. In vivo targeting of 125I and 131I labeled 8H9 in human RMS xenografts was studied. 125I-8H9 could be used for tumor localization in animals. Instead, mice injected with 131I-8H9 showed a significant suppression in tumor volume (Modak et al., 2005; PMID: 16248769). Further, 131-Iodine-8H9 administered through the Ommaya had favorable pharmacokinetics in non-human primates with minimal toxicities. 31-Iodine-8H9 was used in a phase I study with brain tumors, the antibody was safe and might have clinical utility when added to salvage therapy using conventional modalities in the treatment of 8H9-positive LM/CNS cancers. The antibody detected 4Ig-B7H3 under native conditions in LAN-1, HTB82 and U2OS but not in Daudi cells by western blot analysis. The antibody was unable to recognise the antigen under reducing conditions in Western blot analysis (US20100143245A1).

**Antibody First Published in:** Modak et al. Monoclonal antibody 8H9 targets a novel cell surface antigen

expressed by a wide spectrum of human solid tumors Cancer Res. 2001 May 15;61(10):4048-54. [PMID:](#)

**Note on publication:** The original paper describes the generation and characterization of the antibody

## Product Form

**Size:** 100 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.