Anti-Fas [R-125224] Bulk Size Ab00802-10.0-BT

Isotype and Format: Human IgG1, Kappa
Clone Number: R-125224
Alternative Name(s) of Target: CD95; h-HFE7A; Tumor necrosis factor receptor superfamily member 6; CD-95; Apo-1; Apo 1; Apo-1 antigen; Apoptosis-mediating surface antigen FAS; FASLG receptor
UniProt Accession Number of Target Protein: P25445
Published Application(s): Activate, ELISA, FC, Imaging
Published Species Reactivity: Human
Immunogen: R-125224 is generated by the humanization of the murine HFE7A anti-Fas antibody by grafting the CDR regions to the framework regions of the human 8E10 antibody and substituting key framework residues from the murine antibody into the 8E10 sequence. The original HFE7A was derived from a hybridoma cell line generated by the fusion of NS1 myeloma cells with splenocytes from Fas-deficient mice which had been immunized with partially purified recombinant human Fas-AIC2A chimera protein consisting of the extracellular region of human Fas antigen (aa -16 to 150) and the extracellular region of the murine IL-3 receptor AIC2 (aa 3-423). The HFE7A hybridoma was selected after screening by flow cytometry for the production of antibodies with the ability to bind to the WR19L12a transformed murine T cell lymphoma cell line expressing human Fas or the L5178YA1 cell line expressing murine Fas, but not to the parental WR19L or L5178Y cells.
Specificity: R-125224 binds to the extracellular portion of human Fas at an eptiope consisting of the sequence RTQNTKCRCK (aa 105-114) (pmid: 11754745). Fas is a type I membrane protein which belongs to the tumor necrosis factor (TNF) receptor/nerve growth factor (NGF) receptor superfamily. It is able to transduce apoptotic signals into the cell when bound by its ligand FasL (Fas ligand), which is primarily expressed in activated T lymphoid-myeloid lineage cells, in the eye, in reproductive organs and in some tumors. The Fas-FasL system is known to play an important role in maintaining the immune system as mice with Fas-defective lymphoproliferation (lpr) and FasL-defective generalized lymphoproliferative disease (gld) mutations develop massive lymphadenopathy and autoimmune diseases.
Application Notes: R-125224 shows the same binding affinity and the same ability to induce apoptosis in WR19L12a cells that express human Fas as the parental murine HFE7A antibody. R-125224 selectively induces apoptosis in type I activated lymphocytes but not in type II cells. R-125224 is able to induce apoptosis in the human lymphoid cell lines H9 and SKW6.4, as well as activated human lymphocytes, when cross-linked with anti-hIgG secondary antibodies. The antibody is unable to induce apoptosis in HPB-ALL cells, Jurkat cells or human hepatocytes. R-125224 has been used in vivo where it has been shown to greatly reduce the number of activated human human CD3+ Fas+ T cells in a SCID mouse model

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possessing a functional human immune system. Fas antigen tissue distribution in cynomolgus monkeys with collagen-induced arthritis at the arm joint (CIA monkeys) has been studied using [125I]-Labeled R-125224. High radioactivity in the bone marrow, thymus, lungs, liver, adrenals, spleen, ovaries, axillary lymph node and mesenteric lymph node compared to the radioactivity in the plasma was observed, which correlates with Fas expression. Fas can also be detected by R-125224 by ELISA.
Antibody First Published in: Haruyama et al Humanization of the Mouse Anti-Fas Antibody HFE7A and Crystal Structure of the Humanized HFE7A Fab Fragment Biol. Pharm. Bull. 25(12) 1537—1545 (2002) PMID:12499636
Note on publication: Describes the generation of 5 humanized versions of the mouse HFE7A antibody and their properties were studied and compared with the parental antibody. The crystal structure of R-125224 was determined.

Product Form

Size: 1 mg Purified antibody in bulk size.
Purification: Protein A affinity purified
Supplied In: PBS only.
Storage Recommendation: Store at 4ºC for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20ºC.
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.

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