

Product datasheet for TA386118

CD95 (FAS) Human Monoclonal Antibody [Clone ID: R-125224]

Product data:

Product Type: Primary Antibodies

Clone Name: R-125224

Applications: ELISA, FC

Reactivity: Human

Host: Human

Isotype: IgG1, kappa **Clonality:** Monoclonal

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.

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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.

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 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.

Formulation: PBS with 0.02% Proclin 300.

Concentration: lot specific

Conjugation: Unconjugated

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

freeze and thaw cycles.

Stability: 3 years from dispatch.

Gene Name: Fas cell surface death receptor

Database Link: Entrez Gene 355 Human

P25445

Synonyms: ALPS1A; APO-1; APT1; CD95; FAIM2; FAS1; FASTM; LFG; NMP35; TNFRSF6