Anti-A33 [huA33] Standard Size Ab00782-10.0

Isotype and Format: Human IgG1, Kappa
Clone Number: huA33
Alternative Name(s) of Target: hA33; A33; GPA33; glycoprotein A33; cell surface A33 antigen
UniProt Accession Number of Target Protein: Q99795
Published Application(s): deplete, ELISA, IF, IHC
Published Species Reactivity: Human
Immunogen: hA33 was generated by humanization of mouse A33 IgG2a-κ by CDR-grafting, and expressed in NSO cells. The mouse A33 antibody was prepared by immunizing BALB/c mice with AsPC-1 pancreatic adenocarcinoma cell line SP2/0 myeloma cells.
Specificity: hA33 binds specifically to the ectodomain of A33 cell-surface differentation antigen. The antigen is a single-pass type-1 membrane glyoprotein of the immunoglobulin superfamily and, while not present in most normal and tumor cell type, it is expressed on the vast majority (95%) of both primary and metastatic colon cancer cells. The protein is involved in cell-cell recognition and signaling.
Application Notes: The binding specificity and affinity of the humanized antibody has been shown to be equal to that of the orginal mouse antibody (1.3 nM), as is the uptake of 90Y-labelled antibody by human coloractal xenografts in nude mice. The circulating half-life of huA33 is also greater than that of the mouse antibody. Antigen-binding assays have been conducted by ELISA using Colo205 and SWI222 A33 antigen-expressing cells. Biodistribution assays have also been performed using hA33-12N4 conjugate in nude mice bearing subcutaneous SWI222 tumour xenografts. This antibody can be used as a biomarker for colorectal carcinoma.TFM (trivalent Fab fragment - constructed using trimaleimide cross-linkers) was shown to have a greater binding avidity for the target compared to huA33 with faster blood clearance shown in cynomolgus monkeys and guinea pigs.
Antibody First Published in: King et al. Preparation and preclinical evaluation of humanised A33 immunoconjugates for radioimmunotherapy. Br J Cancer. 1995 Dec;72(6):1364-72. PMID:8519646
Note on publication: Describes the construction of humanized A33 antibody to combat rapid clearance of the antibody as a result of the human anti-mouse antibody (HAMA) response. This antibody was compared with that of the original mouse antibody and its suitibility for radioimmunotherapy of colorectal carcinoma was determined.

Product Form

Size:

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200 µg Purified antibody.
Purification: Protein A affinity purified
Supplied In: PBS with 0.02% Proclin 300.
Storage Recommendation: Store at 4ºC for up to 3 months. 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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