

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Expressversand

#### SZABO-SCANDIC HandelsgmbH

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## Anti-CD105 [TRC105 (Carotuximab)] Standard Size Ab04183-10.0

Isotype and Format: Human IgG1, Kappa

Clone Number: TRC105 (Carotuximab)

Alternative Name(s) of Target: ENG; END; Endoglin; TRC-105; c-SN6j; Y4-2F1

UniProt Accession Number of Target Protein: P17813

Published Application(s): microscopy, PET imaging, therapeutic, Block, FC

Published Species Reactivity: Human, Mouse

**Immunogen:** The parental mouse antibody SN6j was generated by immunizing female BLAB/c mice with the isolated human endoglin. Later on a human/mouse chimeric antibody c-SN6j of human IgG1 isotype was generated from the murine parental antibody.

**Specificity:** This antibody binds human endoglin (CD105) and also reported to cross react with mouse CD105. Endoglin is a vascular endothelium glycoprotein that plays an important role in the regulation of angiogenesis. It is required for normal structure and integrity of adult vasculature and regulates the migration of vascular endothelial cells.

Application Notes: The original mouse parental antibody SN6j and their immunoconjugates suppressed angiogenesis, tumor growth and metastasis without overt toxicity in mice. In a dose-escalation study performed by administration of chimeric SN6j into six monkeys, it was reported that murine part induced a weaker immune response than the human part. Increasing the dose increased plasma levels of c-SN6j but did not increase the immune responses to c-SN6j (PMID: 15856228). In a phase I clinical trial conducted in patients with advanced cancer, assessment of safety, pharmacokinetics, and antitumor activity of TRC105 was conducted and it was reported that this antibody was well tolerated. Evidence of clinical activity was also seen in a refractory patient population (PMID: 22767667). This antibody was conjugated to pisothiocyanatobenzyl-desferrioxamine (Df-Bz-NCS) and labeled with 89Zr to obtain Df-TRC105. Flow cytometry and microscopy studies revealed that there was no difference in binding of CD105 to TRC105 and Df-TRC105. PET imaging, biodistribution, blocking, and ex vivo histology studies were performed on 4T1 murine breast tumor-bearing mice to evaluate the pharmacokinetics and tumor targeting efficacy of 89Zr-Df-TRC105 (PMID: 21909753). A conjugation of Copper-64, 800CW and TRC105 to the surface of multifunctional mesoporous silica nanoparticles (MSN) was used for in vivo positron emission tomography (PET) imaging/ NIRF imaging of the tumor vasculature. It was reported that dual-labeled MSN is an attractive candidate for cancer theranostics (PMID: 24937108). In another study in patients with hepatocellular carcinoma, it was reported that TRC105 combined with sorafenib was well tolerated at the

recommended single agent doses of both drugs (PMID: 28465443).

**Antibody First Published in:** Shiozaki et al. Antiangiogenic chimeric anti-endoglin (CD105) antibody: pharmacokinetics and immunogenicity in nonhuman primates and effects of doxorubicin. Cancer Immunol Immunother. 2006 Feb;55(2):140-50. PMID:15856228

**Note on publication:** This paper describes the generation of the chimeric version of anti-endoglin antibody SN6j and tests pharmacokinetics and immunogenicity of this antibody in monkeys.

### **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.