

T47D-STn Cell Line

Catalogue number: 153170

Sub-type: Continuous

Images:

Contributor

Inventor: Joy Burchell ; Joyce Taylor-Papadimitriou

Institute: King's College London

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: T47D-STn Cell Line

Alternate name:

Class:

Conjugate:

Description: The parental T47D cell line was established from the pleural effusion of a ductal carcinoma of the breast. The tumour cell line, T47D-STn, was created as a breast cancer model which expresses the Sialyl-Tn, STn, antigen. T47D-STn cells overexpress the enzymes C2GnT1, a beta-1,3galactosyl-O-glycosyl-glycoprotein and glycosyltransferase, ST6GalNAc-I. ST6GalNAc-I which is found throughout the Golgi, can catalyse the transfer of sialic acid to N-acetylgalactosamine and is predominately limited to the gastrointestinal tract in normal adult tissues. Expression of ST6GalNAc-I in human cells promotes formation of the STn antigen which is a saccharide structure (N-acetylgalactosamine) linked to serine or threonine by a glycosidic bond. STn antigens are not usually found on healthy cell surfaces but often on human breast cancer cells. Together with wild-type T47D and T47D-E2J these cell lines represent a panel of isogenic cells with different O-linked glycosylation patterns.

Purpose:

Parental cell: T47D

Organism: Human

Tissue: Breast

Model:

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details:

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: N-acetylgalactosaminide alpha-2,6-sialyltransferase 1 - ST6GalNAc-1

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes:

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: DMEM 10% FCS, 500 ?g/ml G418, 300 ?g/ml hygromycin

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions: Liquid Nitrogen

Shipping conditions: Dry ice

Related tools

Related tools: T47D-E2J Cell Line

References

References: Sewell et al. 2006. J Biol Chem. 281(6):3586-94. PMID: 16319059. ; The ST6GalNAc-I sialyltransferase localizes throughout the Golgi and is responsible for the synthesis of the tumor-associated sialyl-Tn O-glycan in human breast cancer. ; Dalziel et al. 2001. J Biol Chem. 276(14):11007-15. PMID: 11118434. ; The relative activities of the C2GnT1 and ST3Gal-I glycosyltransferases determine O-glycan structure and expression of a tumor-associated epitope on MUC1.

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