

**MULTISCREEN™ STABLE CELL LINE
RAT RECOMBINANT TSH RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1177-1

Lot Number: C1177-1-073005

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Full-length Rat Tshr cDNA (GenBank Accession Number NM_012888.1)

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 100µg/mL zeocin

Stability: Stable after minimum of two months continuous growth

Background: The thyroid stimulating hormone receptor (TSHR) is expressed in the membrane of thyroid follicular cells. It is involved in regulating thyrocyte cell growth and function. TSHR is also the target autoantigen in thyroid autoimmune diseases. Autoantibodies to TSHR that act as agonists are responsible for the hyperthyroidism of Graves' Disease. Another class of autoantibodies that block the binding of TSH to TSHR may mediate the hypothyroidism associated with Hashimoto's thyroiditis, primary myxoedema, and neonatal hypothyroidism.

Application: Functional assays

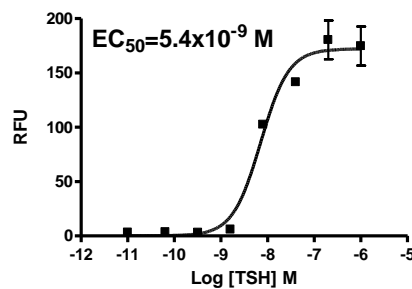


Figure legend: Dose-dependent stimulation of intercellular calcium flux upon treatment with ligand, monitored with FlexStation.

References:

Morgenthaler *et al.* (1999) Direct binding of thyrotropin receptor autoantibody to in vitro translated thyrotropin receptor: a comparison to radioreceptor assay and thyroid stimulating bioassay. *Thyroid* 9:466-475.

Davies *et al.* (2005) Thyrotropin receptor-associated diseases: from adenomata to Graves disease. *J Clin Invest* 115:1972-1983.

Ando, T and Davies TF (2005) Monoclonal antibodies to the thyrotropin receptor. *Clin Dev Immunol* 12:137-43.

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www.multispaninc.com
sales@multispaninc.com
support@multispaninc.com

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Phone: +1 (510) 887-0817
Fax: +1 (510) 887-0863
26219 Eden Landing Road
Hayward, CA 94545-3718
U.S.A.