

Launch of Anti GPCR Monoclonal Antibodies

We hereby announce that TRANS GENIC INC. has released anti GPCR monoclonal antibodies developed by GANP® Mouse Technology as research reagents on July 22, 2009. Details of the products are as follows.

Product Name	Quantity	Price (tax included)	Code
Anti Human FFAR2 Monoclonal Antibody (Clone No. 16E4)	50 μ g	57,750 yen	KX448
Anti Human GPR44 Monoclonal Antibody (Clone No. 8F2)	50 μ g	57,750 yen	KX449
Anti Human GPR119 Monoclonal Antibody (Clone No. 3E8)	50 μ g	57,750 yen	KX450

Distribution method:

They are sold through our distributors
(Cosmo Bio Co.,Ltd., Funakoshi Corporation, and Wako Pure Chemical Industries, Ltd.)

Background of development:

We started a large project to develop antibodies targeting GPCR (G Protein Coupled Receptor) with GANP® Mouse Technology last year. The products launched this time are the achievement of the project.

Product Information:

Please click code and refer to the product data sheets.

G Protein Coupled Receptor : GPCR

GPCR is a type of receptors which transmit information to signal transduction systems in cells to respond to external stimuli by way of G proteins attached to the inner cell membrane.

It is thought that there are more than 1,000 kinds of GPCR. Currently many pharmaceutical companies and universities regard GPCR as innovative druggable targets and are promoting drug discovery and basic researches on them. More than half the medicines available in the market work by binding with GPCR.

FFAR2 (GPR43)

FFAR2 has been identified as a receptor for short-chain fatty acids (SCFAs) that include acetate and propionate. GPR43 is predominantly expressed in peripheral blood leukocytes and, to a lesser extent, in spleen, suggesting that GPR43 may play a role in various immune and inflammatory responses. GPR43 is also expressed in a number of other tissues including adipocytes. GPR43 has an important role in adipogenesis and the development of adipose tissues. A study by using GPR43-deficient mice shows that activation of GPR43 in adipocytes leads to inhibition of lipolysis and results in the reduction of plasma free fatty acids level in vivo.

GPR44(CRTH2)

CRTH2 is activated by prostaglandin D2 (PGD2) and its PGD2 metabolites. CRTH2 is predominantly expressed on Th2-type T cells, eosinophils and basophils and mediates their chemotaxis to PGD2. CRTH2 mediates the respiratory burst and degranulation of eosinophils, induces the production of proinflammatory cytokines in Th2 cells, and enhances the release of histamine from basophils. PGD2-CRTH2 system also may play important roles in the development of chronic allergic skin inflammation.

GPR119

GPR119 is expressed predominantly in pancreas and gastrointestinal tract. GPR119 binds to lysophosphatidylcholine (LPC) and oleoylethanolamide (OEA) as the physiological ligands. GPR119 functions as a glucose-dependent insulinotropic receptor. The GPR119-specific agonist enhances glucose-dependent insulin release in vivo and glucose tolerance is impaired in GPR119-deficient mice. GPR119 also stimulates incretin hormone release and is expressed at high level in intestinal subregions that produce glucose-dependent insulinotropic peptide and glucagons-like peptide (GLP)-1.