



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
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- Expressversand

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# PRODUCT INFORMATION



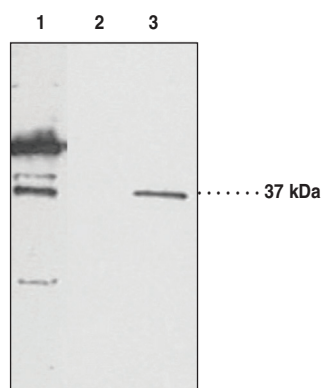
## GPR55 Polyclonal Antibody

Item No. 10224

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide-affinity purified polyclonal antibody.
<b>Synonyms:</b>	G Protein-Coupled Receptor 55, LIP1, Lysophosphatidylinositol Receptor 1
<b>Immunogen:</b>	Synthetic peptide from an internal cytoplasmic region of human GPR55
<b>Species Reactivity:</b>	(+) Human and bovine GPR55
<b>Uniprot No.:</b>	Q9Y2T6
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥3 years
<b>Storage Buffer:</b>	PBS, pH 7.2, with 50% glycerol, and 0.02% sodium azide
<b>Host:</b>	Rabbit
<b>Applications:</b>	ELISA and Western blot (WB); the recommended starting dilution is 1:500 and 1:200, respectively. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: Bovine cornea (5 µg)  
Lane 2: HEK293 lysate (13 µg)  
Lane 3: GPR55-transfected  
HEK293 lysate (13 µg)

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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# PRODUCT INFORMATION



## Description

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GPR55 is an orphan G protein-coupled receptor.<sup>1</sup> GPR55 is expressed in the brain, large dorsal root ganglion neurons, and many peripheral tissues.<sup>2,3</sup> Endogenous agonists for GPR55 include lysophosphatidylinositol ( $EC_{50} = 1.2 \mu\text{M}$  in a  $\beta$ -arrestin-GFP biosensor assay) and the endocannabinoids anandamide (arachidonoyl ethanolamide; Item No. 90050) and 2-arachidonoyl glycerol (Item No. 62160;  $EC_{50}s = 18.4$  and  $3.5 \text{ nM}$  in GTP $\gamma$ S binding assays).<sup>1,4</sup> It is also activated by the cannabinoid  $\Delta^9$ -tetrahydrocannabinol ( $\Delta^9$ -THC;  $EC_{50} = 8 \text{ nM}$  in a GTP $\gamma$ S binding assay).<sup>1,5</sup> GPR55 is expressed in  $\beta$  cells and pharmacological activation increases glucose-induced insulin release in wild-type mice and, to a lesser extent, in Gpr55 knockout mice.<sup>6</sup> GPR55 expression is increased in the visceral adipose tissue of obese patients and, to a larger extent, in obese patients with type-2 diabetes.<sup>7</sup> Activation of GPR55 increases the growth and invasiveness of cancer cells *in vitro*, and its expression in patient-derived tumors is positively correlated with a worse prognosis.<sup>6</sup> GPR55 activation has also been associated with inhibition of osteoclast formation. Cayman's GPR55 Polyclonal Antibody can be used for flow cytometry, immunofluorescence, and Western blot applications. The antibody recognizes GPR55 at 37 kDa from human and bovine samples. Post-translational modifications such as glycosylation may retard receptor electrophoretic migration such that the protein signal may be detected above 37 kDa.

## References

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2. Sawzdargo, M., Nguyenn, T., Lee, D.K., *et al.* Identification and cloning of three novel human G protein-coupled receptor genes GPR52,  $\Psi$ GPR53 and GPR55: GPR55 is extensively expressed in human brain. *Brain Res. Mol. Brain Res.* **64**(2), 193-198 (1999).
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