Product Data Sheet

Chemical Properties

**Product Name:** TAK-875

**Cas No.:** 1000413-72-8

**M.Wt:** 524.64

**Formula:** C29H32O7S

**Synonyms:** TAK 875; TAK875

**Chemical Name:** 2-[(3S)-6-[[3-[2,6-dimethyl-4-(3-methylsulfonylpropoxy)phenyl]phenyl]methoxy]-2,3-dihydro-1-benzofuran-3-yl]acetic acid

**Canonical SMILES:** CC1=CC(=CC1C2=CC(=CC=C2)COC3=CC4=C(C=C3)C(CO4)CC(=O)O)C)OCCCS(=O)(=O)C

**Solubility:** >26.3mg/mL in DMSO

**Storage:** Store at -20°C

**General tips:** For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

**Shopping Condition:** Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Biological Activity

**Targets:** FFAR1 (GPR40)

**Pathways:** GPCR/G protein >> FFAR1 (GPR40)

**Description:**

TAK-875 is a potent, selective, and oral GPR40 agonist. GPR40 is one of the G protein-coupled receptors predominantly expressed in pancreatic β-cells, mediating enhancement of glucose-stimulated insulin secretion by free fatty acids. In vitro: TAK-875 exhibited potent agonist activity and high binding affinity to the human receptor. In addition, TAK-875 showed excellent agonist potency selectivity for GPR40 receptor.
over other members of the FFA receptor family (for which EC50 > 10 μM) [1].

In vivo: TAK-875 showed potent plasma glucose-lowering action and insulinotropic action during an oral glucose tolerance test in female Wistar fatty rats with impaired glucose tolerance [2].

Clinical trial: TAK-875 acts as a glucose-dependent insulinotropic agent with low hypoglycemic risk. Its PK is suitable for once-daily oral administration.

Reference:


Product Validation

Treatment of TAK-875 induces IP production

Treatment of TAK-875 increases insulin secretion

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes
shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.