DESCRIPTION

SALT OF GLP-1R AGONIST, PREPARATION METHOD THEREFOR AND USE THEREOF

The present disclosure claims priority to a prior application filed with China National Intellectual Property Administration on July 7, 2022, having the patent application number 202210804212X, and entitled "SALT OF GLP-1R AGONIST, PREPARATION METHOD THEREFOR AND USE THEREOF", which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

The present disclosure pertains to the field of drug development and particularly relates to a salt of a GLP-1R agonist, a preparation method therefor, and use thereof.

BACKGROUND

Diabetes is a chronic disease characterized by high blood glucose levels and is caused by (relatively or absolutely) insufficient insulin secretion or insulin action disorders. According to the ninth edition (the latest edition) of the International Diabetes Federation (IDF) Diabetes Atlas, approximately 463 million adults (aged 20-79) worldwide were living with diabetes in 2019, and the number of patients with diabetes is projected to be 578 million by 2030. At this rate, 700 million people worldwide will be living with diabetes in 2045. Therefore, diabetes has become one of the most pressing global social health problems of the 21st century.

Currently, various pharmacological methods are available to treat hyperglycemia and the attendant T2DM (Hampp et al., Use of Antidiabetic Drugs in the U.S., 2003-2012, Diabetes Care, 37:1367-1374, 2014). These methods can be classified into six major categories, each acting through a different major mechanism.

Insulin secretagogues, including sulfonylureas, dipeptidyl peptidase IV (PP-IV) inhibitors, and glucagon-like peptide-1 receptor (GLP-1R) agonists, enhance insulin secretion by acting on pancreatic β cells. Sulfonylureas have limited efficacy and tolerability, cause weight gain, and often induce hypoglycemia. DP-IV inhibitors have limited efficacy. Commercially available GLP-1R agonists are peptides that are administered by subcutaneous injection. Liraglutide is additionally approved for the treatment of obesity.

Biguanides, such as metformin, are believed to act mainly by reducing hepatic glucose production. Biguanides often cause gastrointestinal discomfort and lactic acidosis, which further limit their use.

α-Glucosidase inhibitors, such as acarbose, can reduce intestinal glucose absorption. These medicaments often cause gastrointestinal discomfort.