IDH1-mutant inhibitor

IDH1-mutant inhibitors are a class of drugs designed to specifically target and inhibit the activity of mutant isocitrate dehydrogenase 1 (IDH1) enzymes. These inhibitors are being developed for the treatment of certain cancers, particularly gliomas (brain tumors) that harbor IDH1 mutations.

The primary goal of IDH1-mutant inhibitors is to block the abnormal function of mutant IDH1 enzymes and reduce the production of the oncometabolite 2-hydroxyglutarate (2-HG). By inhibiting mutant IDH1 and reducing 2-HG levels, these inhibitors aim to restore normal cellular processes and potentially hinder tumor growth and progression.

Some of the IDH1-mutant inhibitors that have been developed and are currently under investigation in clinical trials include:

Ivosidenib (Tibsovo): Ivosidenib is an oral medication approved by the U.S. Food and Drug Administration (FDA) for the treatment of relapsed or refractory IDH1-mutant acute myeloid leukemia (AML). It is also being studied in other IDH1-mutant solid tumors, including gliomas.

BAY1436032: BAY1436032 is an investigational IDH1-mutant inhibitor currently being evaluated in clinical trials for the treatment of IDH1-mutant gliomas.

FT-2102: FT-2102 is another IDH1-mutant inhibitor under investigation in clinical trials. It is being studied for the treatment of IDH1-mutant gliomas and other solid tumors.

Clinical trials are essential to assess the safety, efficacy, and tolerability of these inhibitors in specific patient populations. The use of IDH1-mutant inhibitors may depend on factors such as the type and stage of cancer, mutation status, and individual patient characteristics.

It's important to note that while IDH1-mutant inhibitors show promise, they are still under investigation, and their full therapeutic potential is being explored. Therefore, the use of these inhibitors in clinical practice is currently limited to certain indications and under the supervision of healthcare professionals involved in clinical trials or approved treatment