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Carbon C 14 Selumetinib

National Cancer Institute

Source

National Cancer Institute. *Carbon C 14 Selumetinib*. NCI Thesaurus. Code C111763.

A radioconjugate containing the orally available selumetinib, an inhibitor of mitogen-activated protein kinase kinase (MEK or MAPK/ERK kinase) types 1 and 2, labeled with the radioisotope carbon C 14. Upon oral administration, selumetinib selectively inhibits MEK1/2, which prevents the activation of MEK1/2 dependent effector proteins and transcription factors. This leads to an inhibition of cellular proliferation in MEK1/2-overexpressing tumor cells. MEK 1 and 2 are dual specificity kinases that are essential mediators in the activation of the RAS/RAF/MEK/ERK pathway and are often upregulated in various cancer cells. Selumetinib radiolabeled with carbon C-14 may be used as a radiotracer for pharmacokinetic studies of this agent, including its absorption, distribution, metabolism and excretion (ADME).