HETEROCYCLIC INHIBITORS OF EGFR AND/OR HER2, FOR USE IN THE TREATMENT OF CANCER

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application Serial No. 63/089,965, filed on October 9, 2020; and U.S. Provisional Application Serial No. 63/151,468, filed on February 19, 2021; each of which is incorporated herein by reference in its entirety.

TECHNICAL FIELD

This disclosure provides chemical entities (e.g., a compound or a pharmaceutically acceptable salt, and/or hydrate, and/or cocrystal, and/or drug combination of the compound) that inhibit epidermal growth factor receptor (EGFR, ERBB1) and/or Human epidermal growth factor receptor 2 (HER2, ERBB2). These chemical entities are useful, e.g., for treating a condition, disease or disorder in which increased (e.g., excessive) EGFR and/or HER2 activation contributes to the pathology and/or symptoms and/or progression of the condition, disease or disorder (e.g., cancer) in a subject (e.g., a human). This disclosure also provides compositions containing the same as well as methods of using and making the same.

BACKGROUND

Epidermal growth factor receptor (EGFR, ERBB1) and Human epidermal growth factor receptor 2 (HER2, ERBB2) are members of a family of proteins which regulate cellular processes implicated in tumor growth, including proliferation and differentiation. Several investigators have demonstrated the role of EGFR and HER2 in development and cancer (Reviewed in Salomon, et al., Crit. Rev. Oncol. Hematol. (1995) 19:183-232, Klapper, et al., Adv. Cancer Res. (2000) 77, 25-79 and Hynes and Stern, Biochim. Biophys. Acta (1994) 1198:165-184). EGFR overexpression is present in at least 70% of human cancers, such as non-small cell lung carcinoma (NSCLC), breast cancer, glioma, and prostate cancer. HER2 overexpression occurs in approximately 30% of all breast cancer. It has also been implicated in other human cancers including colon, ovary, bladder, stomach,