Globally, it is estimated that some 19% of all tumors in patients with cancer harbor a RAS mutation. There are roughly 3.4 million new cases of cancer with a RAS mutation diagnosed worldwide each year.1

KRAS MUTATION PREVALENCE IN SOLID TUMORS

- Approximately 85% of the RAS mutations in CRC are KRAS.1
- ~36% of all pancreatic cancers has a KRAS mutation.1
- KRAS accounts for virtually all RAS mutations in lung adenocarcinoma.1

When the KRAS gene functions correctly it contributes to normal cell development. However, this gene can mutate and lead to uncontrolled growth of cells and to cancer.1

One of the most prominent mutated forms of the KRAS gene is called KRAS G12C, and is a major driver of tumor growth, occurring broadly across solid tumor indications.5 Normally KRAS alternates between an active state and an inactive state, however, the KRAS G12C mutation favors the active state, leading to uncontrolled multiplication of cells and ultimately to the development of cancer.1

KRAS G12C: One of the Broadest Subgroups of Patients with KRAS-mutated Solid Tumors1

One of the most prominent mutated forms of the KRAS gene is called KRAS G12C, and is a major driver of tumor growth, occurring broadly across solid tumor indications.4 Normally KRAS alternates between an active state and an inactive state, however, the KRAS G12C mutation favors the active state, leading to uncontrolled multiplication of cells and ultimately to the development of cancer.1

The high prevalence of KRAS G12C highlights the importance of finding options for patients who harbor this mutation.9

Scientific Advancements

Novel covalent inhibitors are under investigation with the intent to specifically and irreversibly bind to cysteine-12 in a small pocket of the KRASG12C protein.6,7

Investigating a unique surface groove in the KRASG12C protein, Amgen is exploring the potential in KRASG12C inhibition across multiple tumor types for patients. Advances in understanding the structure of KRAS has prompted further investigations.1

Reference: