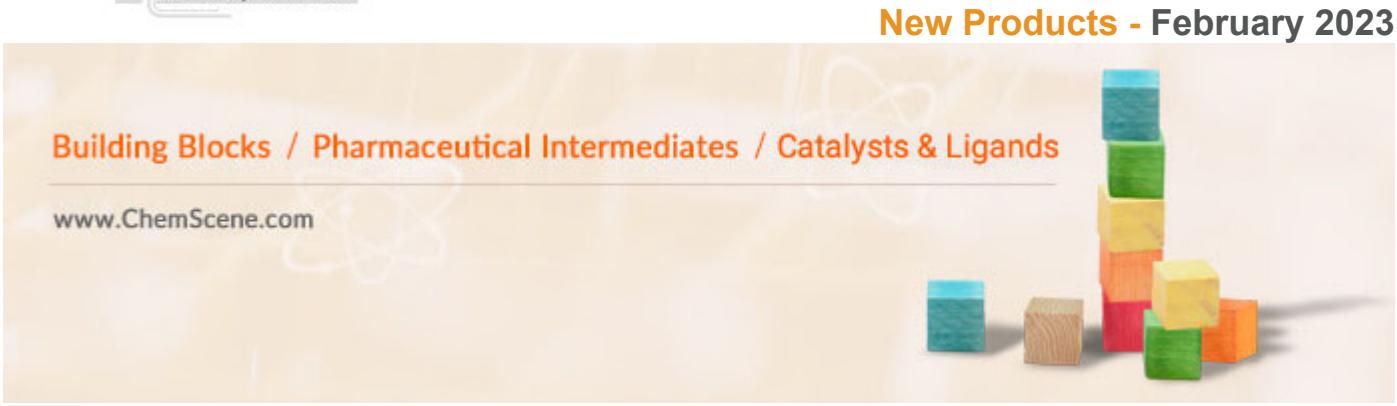
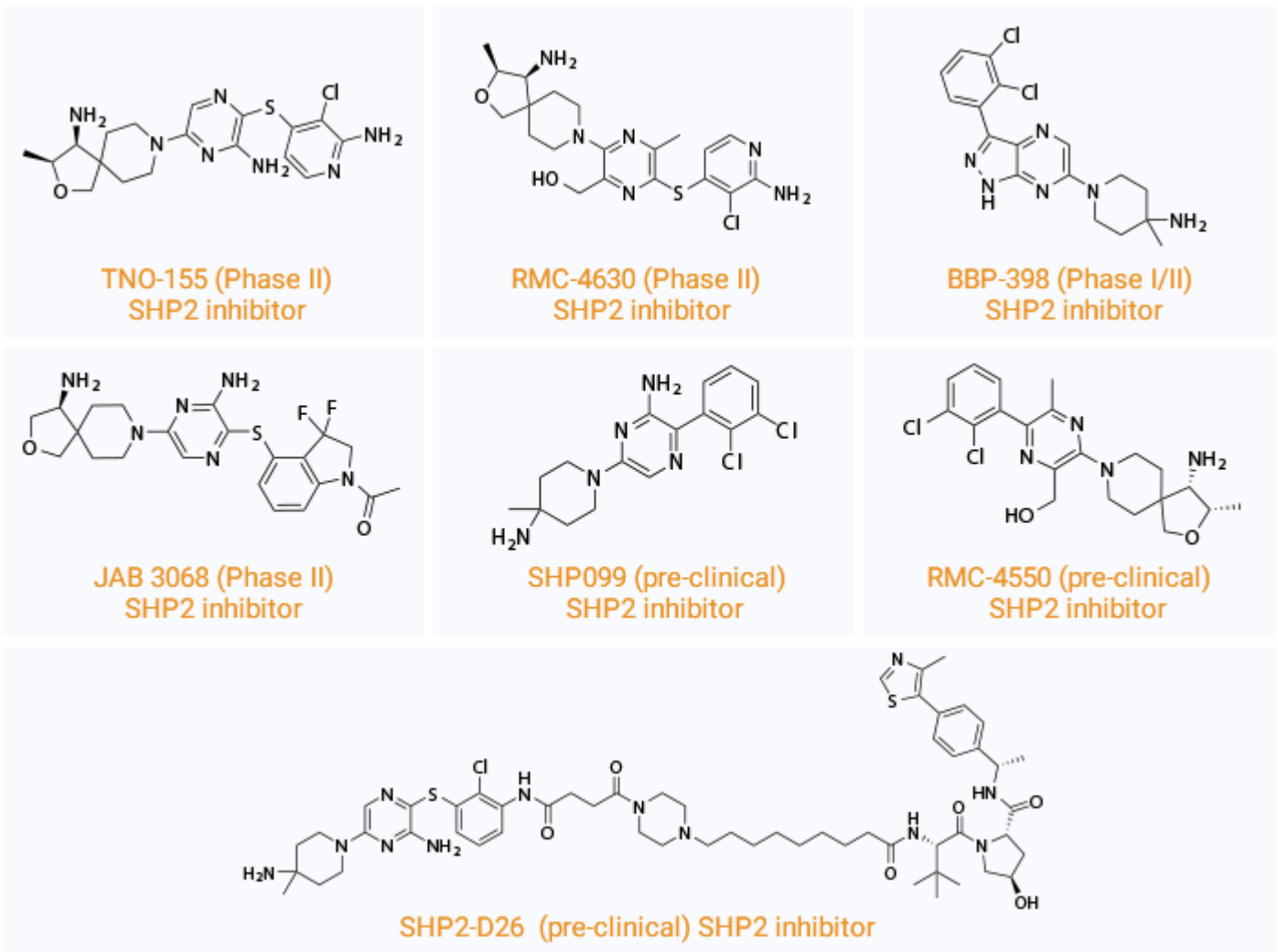


Src homology-2-containing protein tyrosine phosphatase 2 (SHP2) is a member of a human protein phosphatases family (PTPs) and encoded by the PTPN11 proto-oncogene[1]. Structurally, SHP2 consists of three domains-N-terminal and C-terminal SH2 recognition elements and a PTP catalytic domain. SHP2 modulates diverse cell signaling events that control metabolism, cell growth, differentiation, cell migration, transcription and oncogenic transformation. It interacts with diverse molecules in the cell, and regulates key signaling events including RAS/ERK, PI3K/AKT, JAK/STAT and PD-1 pathways downstream of several receptor tyrosine kinases (RTKs) upon stimulation by growth factors and cytokines. Mutations in the PTPN11 gene and subsequently in SHP2 have been identified in several human diseases, such as Noonan Syndrome, Leopard Syndrome, juvenile myelomonocytic leukemias, neuroblastoma, melanoma, acute myeloid leukemia and cancers of the breast, lung and colon. SHP2, therefore, represents a highly attractive target for the development of novel therapies for the treatment of various diseases. To date, more than ten SHP2 inhibitors have entered into clinical trials[2-10].



A series of building blocks will be used as molecular fragments in the design of SHP2 inhibitors.

[1] Journal of Medicinal Chemistry (**2020**), 63, 23, 14780-14804.
[2] European Journal of Medicinal Chemistry (**2022**), 230, 114106.
[3] Bioorganic & Medicinal Chemistry Letters (**2020**), 30, 1, 126756.
[4] European Journal of Medicinal Chemistry (**2020**), 190, 112117.
[5] European Journal of Medicinal Chemistry (**2021**), 214, 113264.
[6] Journal of Medicinal Chemistry (**2020**), 63, 20, 11368-11396.
[7] Journal of Medicinal Chemistry (**2020**), 63, 22, 13578-13594.
[8] Journal of Medicinal Chemistry (**2016**), 59, 17, 7773-7782.
[9] Journal of Medicinal Chemistry (**2022**), 65, 4, 3066-3079.
[10] WO2022009098A1.

Cat. No. : CS-0052344
CAS: 2055761-19-6

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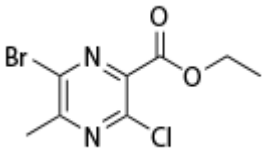

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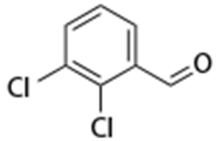

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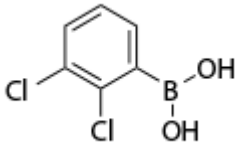

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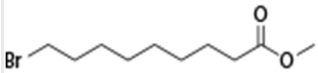

Cat. No. : CS-0129031
CAS: 67878-15-3

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