

Review Article

A REVIEW ON “CARBAZOLES”: CHEMISTRY AND PHARMACOLOGICAL ACTIVITY

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For over half a century, the carbazole skeleton has been the key structural motif of many biologically active compounds including natural and synthetic products. Carbazoles have taken an important part in all the existing anti-cancer drugs because of their discovery from a large variety of organisms, including bacteria, fungi, plants, and animals. In this article, we specifically explored the literature from 2012 to 2018 on the anti-tumor activities reported to carbazole derivatives and we have critically collected the most significant data. The most described carbazole anti-tumour agents were classified according to their structure, starting from the tricyclic–carbazole motif to fused tetra-, penta-, hexa- and heptacyclic carbazoles. To date, three derivatives are available on the market and approved in cancer therapy.

Key Words: carbazole, derivatives , anti-cancer drugs, anti-tumor activities .

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