BIOLOGICAL ACTIVITY:

Acriflavine is a fluorescent dye for labeling high molecular weight RNA. It is also a topical antiseptic.

**In Vitro:** Acriflavine is identified as a potent inhibitor of the MCT4 that can inhibit the binding between Basigin and MCT4. Acriflavine significantly inhibits growth and self-renewal potential of several glioblastoma neurosphere lines[1]. The HIF-1 inhibitor acriflavine decreases survival and growth of CML cells. It targets stem cell potential of CML cells[2].

**In Vivo:** Acriflavine treatment inhibits intratumoral expression of VEGF and tumor vascularization[1]. In a murine CML model, acriflavine decreases leukemia development and reduces LSC maintenance[2]. Acriflavine retards tumor growth in a murine model of breast cancer. The combination of sunitinib with acriflavine significantly decreases vascular endothelial growth factor and TGF-β expression and reduces tumor vasculature followed by increased intratumor necrosis and apoptosis[3].

**Protocol (Extracted from published papers and Only for reference)**

**Animal Administration:** Acriflavine is dissolved in PBS.[2] Mice: CML mice are treated daily with acriflavine (8 mg/kg) or PBS via intraperitoneal injection, for 10 days starting from day 7 after bone marrow transplantation[2].

**References:**