

**Bromodeoxyuridine (BrdU) or
analog treatment of mice
IACUC Standard Procedure
Effective Date: 9/28/2021**



Description of procedure:

Bromodeoxyuridine, 5-Ethynyl-2'-deoxyuridine (EdU), 5-chloro-2'-deoxyuridine (CldU), or 5-Iodo-2'-deoxyuridine (IdU) administration are common methods used for in vivo labeling of tissues and dividing cells. Other derivatives such as EdU, CldU, or IdU follow the same directions as described in this document for BrdU.

Bromodeoxyuridine (BrdU)

Mice will be given BrdU in the drinking water (0.25-1 mg/ml) daily for up to 6 weeks or alternatively as daily i.p. injections (~1-2 mg in 100µl of sterile saline) for up to 1 week. BrdU-containing water bottles must be shielded from light to prevent BrdU degradation and the water is replaced twice per week. 1% glucose may be included in the drinking water during the first week to overcome taste aversion. Total duration of the administration is 1 hr to 6 weeks, after which animals are euthanized.

Mice will be evaluated 3-4 times per week for the first week, and weekly thereafter for general appearance, ability to move normally around cage and reach food and water, ability to eat and drink, coat appearance, skin color, lethargy, aggression (animals will be housed individually if excessive fight wounds are noticed). Mice will be evaluated by the [Body Condition Scoring \(BCS\)](#) index.

Agents: This procedure requires Bromodeoxyuridine (BrdU) or 5-Ethynyl-2'-deoxyuridine (EdU) or 5-chloro-2'-deoxyuridine (CldU), or 5-Iodo-2'-deoxyuridine (IdU). All agents administered to animals should be listed in the "Agents" section of the RIO IACUC protocol.

Adverse Effects:

Adverse effects should be listed in the "Adverse Effects" section of the RIO IACUC protocol.

Examples of potential adverse effects include: Diarrhea, lethargy, aggression, weight loss inflammatory skin lesions, decreased weight/hair growth, and hematological adversity (anemia, leukocytopenia, thrombocytopenia)