

## *ELEVATED PLUS MAZE*

### *Introduction*

Elevated Plus Maze (EPM) is a widely used behavioral assay in the study of anxiety and anxiety-related disorders in neuroscience. The maze is based on the tendency of rodents to avoid exposed open areas and their innate behavior to scavenge for food. The EPM is a four-choice armed maze that exploits the natural tendency of rodents to seek sheltered spaces. Of the four arms of the maze, two arms are enclosed by walls while the remaining two are un-walled.



### *Summary and Key Points*

- The Elevated Plus Maze is a widely used anxiety-related behavioral assay.
- The maze has four alternating enclosed and open arms radiating from the small central platform, spaced at 90 degrees from one another.
- The animal's preference for enclosed or open spaces is recorded in an Elevated plus Maze task.
- Subjects treated with anxiolytic drugs tend to show lessened anxiety-like behavior by visiting the open arms more.
- Subjects treated with anxiogenic drugs show heightened anxiety-like behavior and prefer the enclosed areas of the maze.
- By enclosing the adjacent arms and introducing aversive stimuli in the enclosed arms, the apparatus can be easily adapted for a discriminative avoidance task.
- Specific strains of rodents may perform differently on the maze.

### *Specification*

**Arm Length: 30cm**

**Arm Width: 5cm**

**Wall Height: 15cm**

**Stand Height: 45cm**

**Material: wood & Acrylic**

