

## REVIEWER'S REPORT

Manuscript No.: IJAR-50491

Date: 28/2/2025

### Title:

**Production, characterization and anticancerous activity of L-asparaginase from Bacillus sp**

### Recommendation:

Accept as it is ..... 

Accept after minor revision.....

.....

Accept after major revision .....

Rating	Excel.	Good	Fair	Poor
Originality		Good		
Techn. Quality		Good		
Clarity	Excellent			
Significance	Excellent			

Reviewer Name: Dr.Sumathi

Date: 28/2/2025

### Reviewer's Comment for Publication.

*(To be published with the manuscript in the journal)*

*The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.*

Anticancer activity is the ability of a substance to prevent, delay, or inhibit the development of cancer. Researchers are continually working to develop new anticancer drugs and therapies.

### Detailed Reviewer's Report

- L- asparaginase is an enzyme used as a chemotherapy drug to treat acute lymphoblastic leukemia a type of childhood cancer. It breaks down the amino acid asparagine, which is essential for the growth and survival of cancer cells.**
- By depleting asparagine in the body L- asparaginase inhibits the proliferation and causes the death of cancer cells.**

**REVIEWER'S REPORT**

- 3. Acute lymphoblastic leukemia refers to a type of blood cancer where the bone marrow produces an excessive amount of immature white blood cells called lymphoblasts, leading to a rapidly progressing form of leukemia.**
- 4. Essentially , it is a cancer that starts in the lymphocytes a specific type of white blood cell and develops quickly.**
- 5. Glutaminase free refers to a form of L asparaginase that does not have glutaminase activity. Glutaminase- free L-asparaginase has been shown to be effective in treating leukemia and solid cancers in mice.**
- 6. It is also being studied for use in treating acute lymphocytic leukemia in humans.**
- 7. The MTT assay is a colorimetric assay that measures cell viability, proliferation, and cytotoxicity. It is used to assess cell metabolic activity and mitochondrial function.**
- 8. Nessler's reagent is a solution used to detect ammonia and ammonium compounds in water. It is a pale yellow alkaline solution that contains potassium iodide, mercury chloride and sodium hydroxide.**
- 9. Results and discussion parts should be in separate.**
- 10. Results with tables and graphs are good.**
- 11. Summary parts should be included.**
- 12. Review of informations good. Can be added flow charts of review points.**
- 13. References should be in alphabetical order.**