

Technical Services- Clinical Microbiology Division

A. Antimicrobial activity

1. Minimum inhibitory concentration (MIC) determination against Gram positive and Gram negative bacteria

Method: Micro dilution method using Muller Hinton broth as per CLSI guidelines

Panel of Bacterial isolates

- *Staphylococcus aureus* ATCC 29213
- *S epidermidis* ATCC 29222
- *Streptococcus mutans* ATCC 25175
- *Actinomyces viscosus* ATCC
- *Enterococcus faecalis* ATCC 51299
- Vancomycin resistant enterococci
- Methicillin resistant *S aureus*
- *Escherichia coli* ATCC 25922
- *Pseudomonas aeruginosa* ATCC 27853
- *Klebsiella pneumoniae* ATCC 700603
- *Fusobacterium nucleatum* ATCC 25586 (0328P)
- *Porphyromonas gingivalis* ATCC 33277 (0912P)

Price for MIC determination for a single compound/ organism – Rs. 10,000/-

2. MIC determination against yeast and fungi

Method: Micro dilution method using RPMI 1640 media as per CLSI guidelines

Panel of fungal isolates

- *Candida albicans* ATCC 90028
- *Candida tropicalis* ATCC 750
- *Candida krusei* ATCC 6258
- *Candida parapsilosis* ATCC 22019
- *Candida glabrata* ATCC90030
- *Aspergillus fumigates*
- *Aspergillus flavus* MTCC 1973
- *Aspergillus niger* ATCC 16404

Price for MIC determination for a single compound/ organism – Rs. 15,000/-

3. MIC determination against *Mycobacterium tuberculosis*

Method: Resazurin based Micro dilution method using Middle brook 7H9 media

Panel of isolates

- *Mycobacterium tuberculosis* H37 Rv
- *Mycobacterium tuberculosis* Isoniazid resistant
- *Mycobacterium tuberculosis* MDR (clinical isolate)

Price for MIC determination for a single compound/ organism – Rs. 20,000/-

B. *In-vivo* efficacy studies in mice models of infection

1. *In-vivo* efficacy in systemic infection of model of *S aureus* and MRSA in mice (ED50 determination)

Animals species: Swiss albino mice of single sex

Animals /group: 06

Number of dosage groups per compound: 05

Duration of experiment: 4 days of observation for mortality

Price for ED50 determination of a single compound- Rs. 2,00,000/-

2. *In-vivo* efficacy in intranasal infection model of *M tuberculosis* in mice (Log CFU estimation in lungs)

Animal species: Balb/c mice

Animals/group: 06

Duration of experiment: 9 weeks from infection till CFU determination (1 week of infection+ 4 weeks of dosing + 4 weeks for CFU determination)

Price for/ group: Rs. 25,000/-

Vehicle control (positive control will be treated as separate group)

3. *In-vivo* efficacy in aerosol chronic infection model of *M tuberculosis* in mice (Log CFU estimation in lungs)

Animal species: Balb/c mice

Animals/group: 06

Duration of experiment: 12 weeks from infection till CFU determination (4 weeks of infection + 4 weeks of dosing + 4 weeks for CFU determination)

Price for/ group: Rs. 40,000/- (For additional dosing Rs 5000/week/group)

Vehicle control (positive control will be treated as separate group)