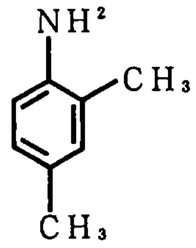
2,4-Dimethylaniline (2,4-ジメチルアニリン)

Chemical Name: 2,4-Dimethylaniline
Synonym 2,4-Xylidine
Benzenamine, 2,4-dimethyl-
Molecular weight: 121.18
Melting point: ℃
Boiling point: 216℃

Chemical Structure




CAS No : 95-68-1
MITI No : (3)-129
Source of Substance: Wako Pure Chemical Ind., Ltd.
Lot.No.: CTQ5179
Purity: %
Vehicle: DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

Experimental Data

| | Treated Time (Hr) | Concentration (mg/ml) | No. of Metaphase | Polyploid (%) | Judge | Cell with Structural Chromosome Aberration (%) Gap | CTB | CTE | CSB | CSE | Total -G | Total +G | Judge |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DMSO | 24 | | 200 | 1.0 | − | 0 | 0.5 | 0 | 0 | 0 | 0.5 | 0.5 | − |
| | 48 | | 200 | 1.0 | − | 0.5 | 0.5 | 0 | 0 | 0 | 0.5 | 1.0 | − |
| Test Chemical | | | | | | | | | | | | | |
| | 24 | 0.13 | 200 | 1.0 | − | 0.5 | 0.5 | 0 | 0 | 0 | 0.5 | 1.0 | − |
| | | 0.25 | 200 | 1.0 | − | 0.5 | 1.5 | 1.5 | 0 | 0 | 3.0 | 3.5 | − |
| | | 0.5 | 200 | 1.0 | − | 0.5 | 1.5 | 2.5 | 0 | 0 | 3.5 | 4.0 | − |
| | | 1.0 | | | | No observation for metaphase | | | | | | | |
| | | 1.5 | | | | No observation for metaphase | | | | | | | |
| | 48 | 0.13 | 200 | 1.0 | − | 1.0 | 0.5 | 0.5 | 0 | 0 | 1.0 | 2.0 | − |
| | | 0.25 | 200 | 0.5 | − | 0.5 | 1.0 | 3.5 | 0.5 | 0 | 4.5 | 5.0 | ± |
| | | 0.5 | 200 | 0.5 | − | 2.5 | 7.0 | 13.5 | 0.5 | 0 | 17.5 | 18.0 | + |
| | | 1.0 | | | | No observation for metaphase | | | | | | | |
| | | 1.5 | | | | No observation for metaphase | | | | | | | |
| Positive Control | | | | | | | | | | | | | |
| (MMC) | 24 | 0.00005 | 200 | 1.5 | − | 2.0 | 4.5 | 26.5 | 0 | 0 | 28.0 | 29.5 | + |
| | 48 | 0.00005 | 200 | 2.0 | − | 1.5 | 8.0 | 27.0 | 1.5 | 0 | 32.0 | 33.0 | + |

Experimental Data

| | S 9 with or without | Concentration (mg/ml) | No. of Metaphase | Polyploid (%) | Judge | Cell with Structural Chromosome Aberration (%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Gap | CTB | CTE | CSB | CSE | Total -G | Total +G | Judge |
| DMSO | − | | 200 | 2.0 | − | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 1.5 | 2.0 | − |
| | + | | 200 | 1.5 | − | 1.0 | 0.5 | 0.5 | 0 | 0 | 1.0 | 2.0 | − |
| Test Chemical | | | | | | | | | | | | | |
| | − | 0.013 | 200 | 1.5 | − | 0.5 | 0 | 0.5 | 0 | 0 | 0.5 | 1.0 | − |
| | | 0.025 | 200 | 0.5 | − | 0.5 | 0 | 0 | 0 | 0 | 0 | 0.5 | − |
| | | 0.05 | 200 | 0.5 | − | 0.5 | 0 | 1.0 | 0 | 0 | 1.0 | 1.5 | − |
| | | 0.1 | 200 | 0.5 | − | 0 | 0.5 | 0 | 0 | 0 | 0.5 | 0.5 | − |
| | | 0.2 | 200 | 0.5 | − | 0 | 0.5 | 1.0 | 0 | 0 | 1.5 | 1.5 | − |
| | + | 0.013 | 200 | 5.0 | ± | 0.5 | 0 | 3.5 | 0 | 0 | 3.5 | 4.0 | − |
| | | 0.025 | 200 | 5.5 | ± | 1.0 | 2.0 | 10.5 | 0 | 0 | 11.5 | 12.5 | + |
| | | 0.05 | 200 | 13.0 | + | 2.0 | 5.5 | 20.5 | 0 | 0.5 | 23.0 | 23.5 | + |
| | | 0.1 | 200 | 8.0 | ± | 3.5 | 11.0 | 30.0 | 0.5 | 0 | 34.0 | 35.0 | + |
| | | 0.2 | 200 | 4.5 | − | 8.0 | 22.0 | 50.5 | 0 | 0 | 53.5 | 55.0 | + |
| Positive Control | | | | | | | | | | | | | |
| (B(a)P)− | | | 200 | 0.5 | − | 1.0 | 0 | 0 | 0 | 0 | 0 | 1.0 | − |
| | + | | 200 | 0.5 | − | 5.0 | 7.5 | 47.5 | 0 | 0 | 49.0 | 50.0 | + |