



Ames Test – Ready to Use Kits

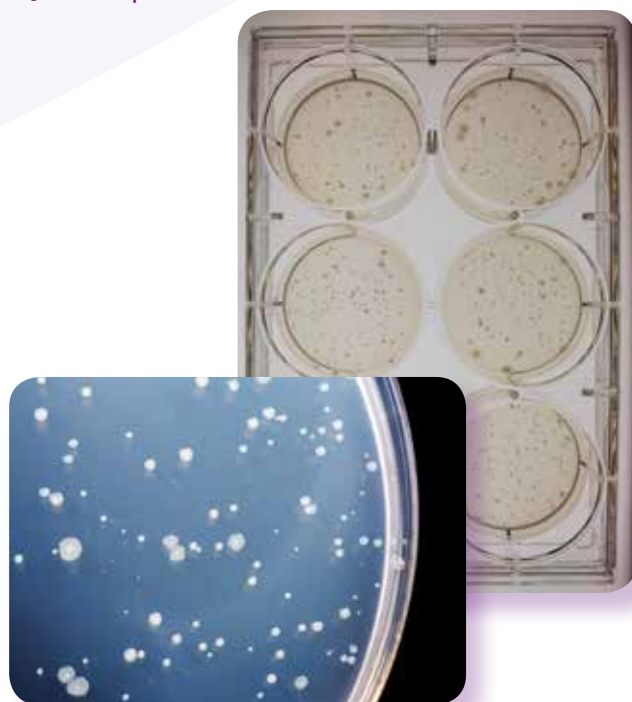
MacroAmes1 – Petri Dish

MicroAmes6 – 6Well Plate

- Standardized test kits including all reagents for Ames test (excl. S9 cofactor solution)
- Quality controlled kit, certificate of analysis delivered with each batch
- Miniaturized agar plate test kits with 6 wells
- Detailed instruction for use
- Technology transfer available (on site or digital)
- Analytical services available under GLP and non-GLP

Benefits of ready to use Ames Kits on agar plates:

- No internal quality control experiments necessary
- Standardized Kit for improved interlaboratory comparison
- Quality control for strains, media S9 and positive controls included
- Certificate of analysis delivered
- Kit includes all reagents necessary to perform the Ames test in agar plates except S9 cofactor solutions, plastic ware
- MacroAmes1 Kit available without reagents for minimal glucose plates
- OECD TG471, ICH M7 compliant
- Technology transfer available, on site or digital



Comparison of different ready to use Ames Test Kits

Triplicates, 5 or 6 dilutions, +/- S9, including positive and solvent control, sterility controls

Ames MPF	MicroAmes6	MacroAmes1
Ames Fluctuation Test Kit in liquid Microplate Format	Plate Incorporation Test Kit in 6-Well Agar Plate	Plate Incorporation Test Kit in Petri Dishes
Standardized, ready to use Kit Quality controlled Certificate of Analysis for strains, S9, positive controls delivered		
12 mg compound / strain 0.39 ml 30 % S9 / strain Waste 6 x 384-well plates / strain Top Dose 5 mg/ml Automation available	50 mg compound / strain 0.33 ml 10 % S9 / strain Waste 9 x 6-well plates / strain Top Dose 1 mg /well No automation	120 mg compound / strain 0.6 ml 10 % S9 / strain Waste 44 petri dishes / strain Top Dose 5 mg/well No automation

Ames ready to use kits with agar plate technology

Article number	Product description	Kit configuration
R02-210-S2-P	MacroAmes1 98/100 (2 Strains)	2 sample kit + S9 + positive controls
S02-514-S2-P	MacroAmes1 98 Penta 3 (5 Strains)	2 sample kit + S9 + positive controls
W02-210-S2-P	MacroAmes1 98/100 without min. glucose plates	2 sample kit + S9 + positive controls
X02-514-S2-P	MacroAmes1 Penta 3 without min. glucose plates	2 sample kit + S9 + positive controls
L02-210-S2-P	MicroAmes6 98/100 (2 Strains)	2 sample kit + S9 + positive controls

Individual reagents for Ames Test

Article number	Product description	Quantity
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Strains – semisolid Format – shipment at room temperature

PSS-0110	AG-TA98	250 µl
PSS-0111	AG-TA100	250 µl
PSS-0112	AG-TA1535	250 µl
PSS-0113	AG-TA1537	250 µl
PSS-0114	AG-TA97a	250 µl
PSS-0120	AG.TA102	250 µl
PSS-0115	E.coli WP2 uvrA	250 µl
PSS-0116	E.coli WP2 [pKM101]	250 µl
PSS-0119	E.coli WP2 UvrA[pKM101]	250 µl
PSS-0121	YG 1041	250 µl
PSS-0122	YG 1042	250 µl
PSS-0123	YG 7108	250 µl

Microsomal Fractions of Rat Liver S9, Co-factors

PRS-PB01	Lyophilized, PB/beta-NF induced rat liver S9	1 ml
PRS-PB02	Lyophilized, PB/beta-NF induced rat liver S9	2 ml
PRS-H-PB05LY	Lyophilized, PB/beta-NF induced hamster liver S9	5 ml
PCO-0800	S9 Cofactor Kit (Buffer Salts, G6P, NADP)	20 ml
PCO-1800	S9 Cofactor Kit (Buffer Salts, G6P, NADP)	70 ml

Positive Controls

PPC-NF00	2-NF: 2-Nitrofluorene	20 µg
PPC-AA01	2-AA: 2-Aminoanthracene	100 µg
PPC-NQ02	4-NQO: 4-Nitroquinoline-N-oxide	50 µg
PPC-AC02	N4-ACT: N4-Aminocytidine	2.5 mg
PPC-AR05	9-AAC: 9-Aminoacridine	1000 µg
PPC-AF10	2-AF: 2-Aminofluorene	10 mg
PPC-IC01	ICR 191	100 µg
PPC-MM04	MMS: Methyl Methanesulfonate	96.2 µl

Ampicillin

PAM-0002	Ampicillin	120 µl
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Micronucleus Test Kit, Chromosomal Aberrations

Fast (2–3 hours), direct identification of clastogenic or aneugenic test compounds with FISH Technology

Article number	Product description	Quantity
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M020	Rapid Micronucleus MoA (Mode of Action) – FISH Assay with centromere Probes	20 Slides
M100	Rapid Micronucleus MoA (Mode of Action) – FISH Assay with centromere Probes	100 Slides
MTE020	Rapid Micronucleus MoA Centromere Telomere Kit FISH Assay with centromere and telomere Probes	20 Slides
MTE100	Rapid Micronucleus MoA Centromere Telomere Kit FISH Assay with centromere and telomere Probes	100 Slides

Analytical Services under GLP and non GLP Conditions

- Ames Test Service Analytics under GLP according to OECD 471 for the regulatory testing in agar petri dishes
- Miniaturized Ames Test in 6-well or 24-well agar plates with reduced quantity of test compound for screening or for genotoxic impurities ICH M7
- Miniaturized Ames Microplate Fluctuation Test in 384-well plates with reduced quantity of test compound for screening or for genotoxic impurities ICH M7, especially suitable for
 - volatile compounds, nitrosamines
 - food, drug packaging materials
 - mixtures
 - drinking, surface, or wastewater
- NanoAmes Test – Service for genotoxic impurities without re-synthesis of compound: 25 µg of test article / 5 strains
- Short turnaround time: 4 weeks
- Treat and Wash Assay for proteins, antibodies, antibiotics or toxic compounds
- Toxicity and sterility assessment
- Competent consultation by an experienced team

Publications on MicroAmes⁶ and MacroAmes¹ technology

- C. Boglari and C. Koelbert (2023) Performance of miniaturized Ames assays indicate high predictive power for mutagenicity, Poster, EMGS 2023 Annual Meeting, Chicago, IL, USA | 9–13 September 2023 | Poster ID PS016
- C. Boglari and C. Koelbert (2024) Investigation of nitrosamines using miniaturized Ames tests, Poster, EEMGS 2024 | Rovinj, Croatia | 23–27 September 2024 | Poster #08
- C. Boglari and C. Koelbert (2024) Bacterial cell density as a crucial factor for the performance of the miniaturized Ames test systems, GUM Meeting | Poster #31 | 20–22 March 2024 | Kaiserslautern, Germany
- C. Boglari and C. Koelbert (2025) Miniaturized Ames Assays to Assess the Mutagenicity of Nitrosamines under Enhanced Ames Test (EAT) Conditions Relevant for Food and Food Contact Materials, Poster, Advances in Safety Assessment of Packaging Materials – 2nd International Symposium, Vienna
- K. Mortelmans and E. Zeiger. 2000. The Ames Salmonella/microsome mutagenicity assay. *Mutat. Res.* 455:29-60.
- D. Maron and B. Ames. 1983 Revised Method for the Salmonella mutagenicity test. *Mutat. Res.* 113:173-215
- S. Flückiger-Isler and M. Kamber. 2012. Direct comparison of the Ames microplate format (MPF) test in liquid medium with the standard Ames preincubation assay on agar plates by use of equivocal to weakly positive test compounds: *Mutation Research* 47 (2012) 3–45
- Burke et al. 1996. Use of the Miniscreen assay to screen novel compounds for bacterial mutagenicity in the pharmaceutical industry. *Mutagenesis*. 11(2):201-5. Brooks. 1995. The use of a streamlined bacterial mutagenicity assay, the MINISCREEN. *Mutagenesis*. 10(5):447–8.
- Flamand et al. 2001. Mini mutagenicity test: a miniaturized version of the Ames test used in a prescreening assay for point mutagenesis assessment. *Toxicol In Vitro*. 15(2):105–14.

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