

DECLARATION

All papers accepted for publication in BJP from January 2016 will be certified by the Editors as meeting the standards laid out in the following declaration.

British Journal of Pharmacology Declaration of Transparency and Scientific Rigour

This *Declaration of Transparency and Scientific Rigour* acknowledges that this paper adheres to the principles for transparent reporting and scientific rigour of preclinical research as set out in the [UK Concordat on Openness on Animal Research](#), the [Research Councils UK guidance to grant applicants](#), the [USA NIH Guidelines](#) on reporting preclinical research, the [ARRIVE Guidelines](#) (Kilkenny *et al.*, 2010) initiated by the National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs), the UK government funded organisation set up to promote the principles of the 3Rs, and the [Basel Declaration](#), an international consensus calling for more trust, transparency and open communication on animal research (see [McGrath *et al.*, 2015](#)).

Group sizes	1	The exact group size (<i>n</i>) for each experimental group/condition is provided, not a range, and ' <i>n</i> ' refers to independent values, not replicates.
	2	Data subjected to statistical analysis have <i>n</i> of at least 5/group. If ' <i>n</i> ' is less than 5 anywhere in the study, an explanation is provided, and statistical analysis is not undertaken on this data set.
	3	Group sizes are equal by design, and any variation, due to experimental losses or violation of predetermined exclusion criteria, are explained.
Randomisation	4	A statement regarding randomisation of samples, animals or human subjects is provided. If randomisation was not undertaken a valid scientific justification is provided.
Blinding	5	A statement regarding blinding of operator and data analyst is provided. If blinding was not undertaken, a valid scientific justification is provided.
Normalisation	6	Any data normalisation (e.g., expression of values as '% of baseline' or 'fold mean control'), is explained with a valid scientific justification (i.e., to control for unwanted sources of variation)'. Normalisation that generates control or baseline values with no variance (SEM = 0) is explained with a valid scientific justification and such data are not subjected to <i>parametric</i> statistical analysis.
	7	Normalisation that generates control or baseline values with no variance (SEM = 0) is explained with a valid scientific justification and such data are not subjected to <i>parametric</i> statistical analysis.
	8	Any data transformation (such as log transformation), is explained with a valid scientific justification (i.e., to generate a Gaussian-distributed data set amenable to parametric statistical analysis).
Statistical comparison	9	Details of any statistical package or program employed are provided, including manufacturer and model number and details of which tests (and which options) and which program (with full version number) were used.
	10	If an experiment (e.g., assay) is undertaken in duplicate, triplicate etc., a statement is made that technical replicates were used to ensure the reliability of single values. Data analysis and data presentation used the single values (i.e., 5 samples each run in triplicate is <i>n</i> = 5 not <i>n</i> = 15).
	11	When comparing groups, a level of probability (<i>P</i>) deemed to constitute the threshold for statistical significance is defined in Methods, and not varied later in Results (by presentation of multiple levels of significance). Thus if <i>P</i> < 0.05 is defined as threshold, <i>P</i> < 0.01 etc., does not appear in the results. However, setting <i>P</i> at a lower value such as <i>P</i> < 0.01 or 0.001 is quite acceptable, provided that this is defined as constituting statistical significance, and is not varied. It is not necessary to state the exact level of <i>P</i> . If no animals were used in this study, go to item 18 .
Validity of animal species or model selection	12	A scientific justification for the animal species and model selected for study is provided.
Ethical statement	13	A statement of ethical approval for experimentation that is recognised worldwide is provided. The nature of the ethical review permissions, and national or institutional guidelines for the care and use of animals, that cover the research are indicated.
Animals	14	The source, species, strain, sex, range of age and weight of animals and any additional data that are relevant to the study are provided.
Housing and husbandry	15	Details are provided of housing (type of facility e.g., specific pathogen free [SPF]; type of cage or housing; bedding material; number of cage companions; tank shape and material etc., for fish).
Experimental procedures	16	Details are provided of anaesthesia and analgesia, surgical procedures, how the animal was killed and, if there is recovery following surgery, the methods of asepsis, and post-operative care. Welfare-related assessments, measurements and interventions (e.g., humane end points) that were carried out prior to, during, or after the experiment are included.
Interpretation	17	A statement is made if the study has any implications for replacement, refinement or reduction (the 3Rs).
Translation (included in Discussion)	18	A statement is made concerning the possible clinical relevance of the study.