Available Hypothesis Tests

| **Function** | **Description** |
| --- | --- |
| [ansaribradley](http://www.mathworks.com/help/stats/ansaribradley.html) | Ansari-Bradley test. Tests if two independent samples come from the same distribution, against the alternative that they come from distributions that have the same median and shape but different variances. |
| [barttest](http://www.mathworks.com/help/stats/barttest.html) | Bartlett's test. Tests if the variances of the data values along each principal component are equal, against the alternative that the variances are not all equal. |
| [**chi2gof**](http://www.mathworks.com/help/stats/chi2gof.html) | Chi-square goodness-of-fit test. Tests if a sample comes from a specified distribution, against the alternative that it does not come from that distribution. |
| [dwtest](http://www.mathworks.com/help/stats/dwtest.html) | Durbin-Watson test. Tests if the residuals from a linear regression are uncorrelated, against the alternative that there is autocorrelation among them. |
| [friedman](http://www.mathworks.com/help/stats/friedman.html) | Friedman's test. Tests if the column effects in a two-way layout are all the same, against the alternative that the column effects are not all the same. |
| [jbtest](http://www.mathworks.com/help/stats/jbtest.html) | Jarque-Bera test. Tests if a sample comes from a normal distribution with unknown mean and variance, against the alternative that it does not come from a normal distribution. |
| [kruskalwallis](http://www.mathworks.com/help/stats/kruskalwallis.html) | Kruskal-Wallis test. Tests if multiple samples are all drawn from the same populations (or equivalently, from different populations with the same distribution), against the alternative that they are not all drawn from the same population. |
| [kstest](http://www.mathworks.com/help/stats/kstest.html) | One-sample Kolmogorov-Smirnov test. Tests if a sample comes from a continuous distribution with specified parameters, against the alternative that it does not come from that distribution. |
| [kstest2](http://www.mathworks.com/help/stats/kstest2.html) | Two-sample Kolmogorov-Smirnov test. Tests if two samples come from the same continuous distribution, against the alternative that they do not come from the same distribution. |
| [lillietest](http://www.mathworks.com/help/stats/lillietest.html) | Lilliefors test. Tests if a sample comes from a distribution in the normal family, against the alternative that it does not come from a normal distribution. |
| [linhyptest](http://www.mathworks.com/help/stats/linhyptest.html) | Linear hypothesis test. Tests if H\*b = c for parameter estimates b with estimated covariance H and specified c, against the alternative that H\*b ≠ c. |
| [ranksum](http://www.mathworks.com/help/stats/ranksum.html) | Wilcoxon rank sum test. Tests if two independent samples come from identical continuous distributions with equal medians, against the alternative that they do not have equal medians. |
| [runstest](http://www.mathworks.com/help/stats/runstest.html) | Runs test. Tests if a sequence of values comes in random order, against the alternative that the ordering is not random. |
| [signrank](http://www.mathworks.com/help/stats/signrank.html) | One-sample or paired-sample Wilcoxon signed rank test. Tests if a sample comes from a continuous distribution symmetric about a specified median, against the alternative that it does not have that median. |
| [signtest](http://www.mathworks.com/help/stats/signtest.html) | One-sample or paired-sample sign test. Tests if a sample comes from an arbitrary continuous distribution with a specified median, against the alternative that it does not have that median. |
| [**ttest**](http://www.mathworks.com/help/stats/ttest.html) | One-sample or paired-sample *t*-test. Tests if a sample comes from a normal distribution with unknown variance and a specified mean, against the alternative that it does not have that mean. |
| [**ttest2**](http://www.mathworks.com/help/stats/ttest2.html) | Two-sample *t*-test. Tests if two independent samples come from normal distributions with unknown but equal (or, optionally, unequal) variances and the same mean, against the alternative that the means are unequal. |
| [vartest](http://www.mathworks.com/help/stats/vartest.html) | One-sample chi-square variance test. Tests if a sample comes from a normal distribution with specified variance, against the alternative that it comes from a normal distribution with a different variance. |
| [vartest2](http://www.mathworks.com/help/stats/vartest2.html) | Two-sample *F*-test for equal variances. Tests if two independent samples come from normal distributions with the same variance, against the alternative that they come from normal distributions with different variances. |
| [vartestn](http://www.mathworks.com/help/stats/vartestn.html) | Bartlett multiple-sample test for equal variances. Tests if multiple samples come from normal distributions with the same variance, against the alternative that they come from normal distributions with different variances. |
| [ztest](http://www.mathworks.com/help/stats/ztest.html) | One-sample *z*-test. Tests if a sample comes from a normal distribution with known variance and specified mean, against the alternative that it does not have that mean. |