

## tf.linalg.logdet

```
logdet(  
    matrix,  
    name=None  
)
```

Defined in [tensorflow/python/ops/linalg\\_impl.py](#).

Computes log of the determinant of a hermitian positive definite matrix.

```
# Compute the determinant of a matrix while reducing the chance of over- or  
underflow:  
A = ... # shape 10 x 10  
det = tf.exp(tf.logdet(A)) # scalar
```

## Args:

- `matrix`: A **Tensor**. Must be `float32`, `float64`, `complex64`, or `complex128` with shape `[..., M, M]`.
- `name`: A name to give this **Op**. Defaults to `logdet`.

## Returns:

The natural log of the determinant of `matrix`.

## numpy compatibility

Equivalent to `numpy.linalg.slogdet`, although no sign is returned since only hermitian positive definite matrices are supported.

---

Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 3.0 License](#), and code samples are licensed under the [Apache 2.0 License](#). For details, see our [Site Policies](#). Java is a registered trademark of Oracle and/or its affiliates.

Last updated November 2, 2017.

## Stay Connected

Blog  
GitHub  
Twitter

## Support

Issue Tracker  
Release Notes

English

[Terms](#) | [Privacy](#)