

Package ‘hemat’

May 8, 2026

Type Package

Title Hematimetric Indices Calculator

Version 1.1.3

Maintainer Andre Luis Fernandes dos Santos <andrvet@alumni.usp.br>

Description Tools to calculate Mean Corpuscular Volume, Mean Corpuscular Hemoglobin, and Mean Corpuscular Hemoglobin Concentration, which are essential for assessing red blood cell health and diagnosing blood disorders.

License GPL (>= 2)

Suggests testthat (>= 3.3.1)

Encoding UTF-8

RoxygenNote 7.3.3

NeedsCompilation no

Author Andre Luis Fernandes dos Santos [aut, cre] (ORCID: <<https://orcid.org/0000-0001-7053-4989>>)

Repository CRAN

Date/Publication 2026-02-18 13:30:08 UTC

Contents

calc_mch	2
calc_mchc	2
calc_mcv	3
Index	4

calc_mch	<i>Calculate Mean Corpuscular Hemoglobin (MCH)</i>
----------	--

Description

Calculates the MCH based on hemoglobin concentration and red blood cell count. MCH measures the average amount of hemoglobin per red blood cell.

Usage

```
calc_mch(hb, rb)
```

Arguments

hb	Numeric value representing the hemoglobin concentration in g/dL.
rb	Numeric value representing the red blood cell count (millions/ μ L).

Value

Numeric value representing the MCH in picograms (pg).

Examples

```
calc_mch(15, 5)
```

calc_mchc	<i>Calculate Mean Corpuscular Hemoglobin Concentration (MCHC)</i>
-----------	---

Description

Calculates the MCHC based on hemoglobin concentration and hematocrit. MCHC measures the average concentration of hemoglobin in red blood cells.

Usage

```
calc_mchc(hb, ht)
```

Arguments

hb	Numeric value representing the hemoglobin concentration in g/dL.
ht	Numeric value representing the hematocrit in percentage.

Value

Numeric value representing the MCHC in grams per deciliter (g/dL).

Examples

```
calc_mchc(15, 40)
```

calc_mcv

Calculate Mean Corpuscular Volume (MCV)

Description

MCV measures the average volume of red blood cells in a blood sample.

Usage

```
calc_mcv(ht, rb)
```

Arguments

ht Numeric value representing the hematocrit in percentage.
rb Numeric value representing the red blood cell count (millions/ μ L).

Value

Numeric value representing the MCV in femtoliters (fL).

Examples

```
calc_mcv(40, 5)
```

Index

calc_mch, 2
calc_mchc, 2
calc_mcv, 3