Package 'PTwins'

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Type Package

Title Percentile Estimation of Fetal Weight for Twins by Chorionicity

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Description Package to Percentile estimation of fetal weight for twins by chorionicity (dichorionic-diamniotic or monochorionic-diamniotic).

License GPL-3

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Description

The PTwins function estimates the fetus weight percentile using a multilevel linear model developed from a Spanish twin cohort.

Usage

```
PTwins(weight,week,day=3,dichorionic=TRUE)
```

Arguments

weight   The fetus weight estimated by ultrasound at a gestational age (weeks) using
             Hadlock formula:
             log10(FW)=1.3596-0.00386(AC)x(FL)+0.0064(HC)+0.0006(BPD)x(AC)+ 0.0424(AC)+0.174(FL)
             FW: fetal weight, AC: abdominal circumference, FL: femur lenght,
             HC: head circumference, BPD: biparital diameter

week   The gestational age in weeks for which the Fetus weight where estimated

day   The exact day in the gestational week at which the fetus weight were estimated.
             For the percentile calculation, if we choose for example: week=23, day=2, this
             is equivalent to 163 days of GA

dichorionic This parameter indicates if the fetus is dichorionic-diamniotic (dichorionic=TRUE)
             or monochorionic-monoamniotic (dichorionic=FALSE)

Details

The inputs weight, week, day or dichorionic can be a number or a vector to include several cases

Value

The returned fit object of PTwins contains the following components.

Percentile   Percentile of the fetus weight

weight   fetus weight

GA   Gestational age in exact weeks

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Examples

```
#Percentile estimation of a dichorionic-diamniotic fetus of 2300 grams
#of weight estimated at the 22nd week (+2 days) of gestational age.

PTwins(weight=2300,week=22,day=2,dichorionic=TRUE)

#Percentile estimation of a monochorionic-diamniotic fetus of 2300 grams
#of weight estimated at the 22nd week (+2 days) of gestational age.

PTwins(weight=2300,week=22,day=2,dichorionic=FALSE)

#Percentile estimation of a dataframe that includes 10 cases

WEIGHT<-round(rnorm(10,2100,125),digits=0)
```

```
WEEK<-sample(seq(18,36),10)
DAY<-sample(seq(0,7),10,replace=TRUE)
dichorionic<-sample(c("TRUE","FALSE"),10,replace=TRUE)
DT<-data.frame(WEIGHT,WEEK,DAY,dichorionic)

PTwins(weight=DT$WEIGHT,week=DT$WEEK,day=DT$DAY,dichorionic=DT$dichorionic)
```

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