PACDB, PACDZB

Pointer Authentication Code for Data address, using key B. This instruction computes and inserts a pointer authentication code for a data address, using a modifier and key B.

The address is in the general-purpose register that is specified by <Xd>.

The modifier is:

- In the general-purpose register or stack pointer that is specified by <Xn|SP> for PACDB.
- The value zero, for PACDZB.

Integer
(FEAT_PAuth)

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9 8 7 6 5	4 3 2 1 0
1	1	0	1	1	0	1	0	1	1	0	0	0	0	0	1	0	0	Z	0	1	1	Rn	Rd

PACDB (Z == 0)

```
PACDB <Xd>, <Xn|SP>
```

PACDZB (Z == 1 && Rn == 11111)

```
PACDZB <Xd>
```

```
boolean source_is_sp = FALSE;
integer d = UInt(Rd);
integer n = UInt(Rn);

if !IsFeatureImplemented(FEAT_PAuth) then
    UNDEFINED;

if Z == '0' then // PACDB
    if n == 31 then source_is_sp = TRUE;
else // PACDZB
    if n != 31 then UNDEFINED;
```

Assembler Symbols

<Xd>   Is the 64-bit name of the general-purpose destination register, encoded in the "Rd" field.

<Xn|SP>   Is the 64-bit name of the general-purpose source register or stack pointer, encoded in the "Rn" field.

Operation

```
if source_is_sp then
    X[d, 64] = AddPACDB(X[d, 64], SP[]);
else
    X[d, 64] = AddPACDB(X[d, 64], X[n, 64]);
```